

Very soon, however, in No. 1, the respirations became much reduced in frequency (10, 8, and 5 per minute), as usual after section of the pneumogastrics, while in No. 2 they continued frequent as well as laborious, and the general signs of agitation and distress were kept up for one to two hours. The animal, however, after that time became exhausted, cool, and partially insensible like the other. They both died between 30 and 40 hours after the operation. The peculiar congestion and solidification of the lungs, considered as characteristic of section of the pneumogastrics, existed to a similar extent in both; and the only appreciable difference between the two bodies was that in No. 2, the blood was fluid, and the abdominal organs congested, while in No. 1, the blood was coagulated, and the abdominal organs natural. This experiment affords additional evidence of the two following facts, which have been already more or less generally acknowledged by experimenters:—

First.—After section of the pneumogastrics, death is produced by congestion of the lungs.

Second.—This congestion is not a direct effect of the division of the nerves, but is caused by the imperfect admission of air into the chest.

ART. IV.—*Extracts from the Records of the Boston Society for Medical Improvement.* By WM. W. MORLAND, M. D., Secretary.

February 13. Imperforate Rectum.—Dr. PARKMAN reported the case. The patient 52 hours old; anus perfectly formed; obstruction of rectum nearly two inches within the anus. Dr. P. waited 18 hours, until the septum became distended by collected meconium, and then punctured the pouch with a trocar; injecting afterwards, and washing out the bowel. This process was repeated, but the opening not remaining free, a director was passed into the anus and through the opening made by the trocar, and the sphincter ani and the septum were divided, from before backwards, by a free incision; the finger could then be passed, and went into a large cavity. After the operation, the child took the breast readily, and is now doing well, three months after the operation. Dr. P. directed an attendant to pass a well-oiled finger within the opened intestine daily.

Needles penetrating the Knee-Joint.—Dr. J. MASON WARREN related three cases. The first was a child of scrofulous habit, 5 or 6 years old, who, while kneeling on the floor, had a needle penetrate and break off in the knee-joint. It was of large size, larger than the ordinary darning-needle. Dr. W. was called out of town late in the evening to see this child in consultation.

On examination, a small aperture could be distinguished below and to the inside of the patella. The leg was flexed on the thigh, and fixed in that position, so that it could not be extended. Dr. W. thought that the needle had penetrated between the two condyles of the femur, and was fixed there, and that it was broken off in the joint, as nothing could be felt of it exter-

nally. He advised, however, that a dissection should be made as far as the capsule, but to abstain from going further unless it could then be detected.

This was done, but nothing found. The question then arose whether the limb should be left in the position in which it was fixed. Dr. W. advised strong flexion and extension to be made, so that in case the body were lodged in the way he supposed, it might either be dislodged or else plough up for itself a cavity in the cartilage on the head of the tibia. By these measures the motions of the limb were restored. The child was kept perfectly quiet for a few weeks, until all inflammatory symptoms had subsided, after which he walked about without inconvenience.

This patient died of phthisis some years subsequently to the accident, and on examination of the knee-joint, the following was the appearance: The needle, as had been supposed, was firmly lodged between the condyles of the femur; it was somewhat corroded; and, from the motions of the joint, it had worn and maintained for itself a passage, so as not to interfere with flexion or extension. The joint itself was otherwise healthy.

The second case was that of a child 6 years old. In the summer of 1853, a needle, which was sticking in the window-seat, got into the knee-joint. It was immediately withdrawn, and the child, not suffering any pain, was allowed to use the limb. A few days after, severe inflammation came on in the wound, and a fungus shot out. At this period, Dr. W. was called to see the patient. The joint was found to be in a very tender and inflamed condition. On flexion, a quantity of pus ran from the wound, which was surrounded by a fungus of the size of a five-cent piece. Entire rest, with a splint, was enjoined, and the fungus was touched with caustic, causing at each application an increase of inflammatory trouble. After four or five weeks of treatment, the case finally terminated favourably. The needle had entered just on the inner side of the ligament of the patella.

The third instance was observed in a child of 5 years. Kneeling down on the floor in front of a bureau, to get something from underneath it, a needle, which had been engaged in the carpet, ran into the joint, and broke off therein. When seen by Dr. W. with her physician, Dr. Ball, the limb was painful on motion, somewhat swollen, and the child could not walk. By making strong flexion, a hard substance could be felt below the patella, on the inside of the joint, giving to the touch the sensation of some large body like a nail.

The patient being etherized, a dissection was made through the skin and fat until what appeared to be the capsule of the joint was reached. Within this, the foreign substance was felt firmly imbedded. The nails of the two fore-fingers were now pressed against it on each side, causing it to project through the capsule, when it was seized by the forceps. It was now found quite difficult to extract, and this was only done after a number of efforts, and by working it laterally, thus disengaging it from the bone. A splint was directed, with applications of cold water, and care in diet; her physician promising to give information if any symptoms requiring attention should present themselves.

Unusually persistent Hemorrhage.—Dr. STRONG reported the case. J. G., 43 years of age, a carpenter by trade, for several years had used spirits freely, but for three or four past years had been temperate; for at least twenty years has been subject to epistaxis, especially during the summers, as long as warm weather continued; he usually bled twice every day, at noon and at night; the amount of blood lost was often large, and the bleeding was arrested with difficulty. For about the same length of time that this hemorrhage has con-

tinued, the patient has been subject to cough, accompanied by copious expectoration; and, within a year or two, there came on slight, occasional hæmoptysis, which was easily stopped by draughts of salt and water; recovering from these attacks, he would return to his occupation as usual. Within the above-mentioned twenty years, he has had several severe fits of illness, which were called "bilious" attacks; his skin has been more or less yellow for the whole period; for about 12 years he has been dyspeptic; his food often oppressed him; he was an unusually small eater, his favourite food being fresh meat without salt; half a pigeon sufficed him for an entire day. His last illness was of twenty-one weeks' duration, reckoning from his first calling medical aid; but for more than a year previously, he had not his usual health. His last attack was catarrhal, with frequent cough and copious expectoration. After about eight weeks he so far recovered as, on the 7th of December, to go out into the open air for a walk, the midday being sunny and pleasant. Soon after returning from his walk, he began to bleed from the lungs, and Dr. S. was summoned. Before his arrival, however, the hemorrhage had ceased; about a pint of blood, by estimate, having been lost. A somewhat superficial examination of the lungs (Dr. S. fearing to excite a return of the bleeding) detected no signs of a cavity or of any marked disease of the lungs. The most usual symptoms were shifting pains about the chest and shoulders, with a sensation of congestion, more permanent in the præcordial region, attended by stricture, as if a cord were tightly drawn around him; and this latter feeling was at times excessive, especially immediately before an access of bleeding. He could, at such times, hardly raise himself erect, but leaned forward, with an effort to respire. On examination, the liver was found to occupy an unusually large space, and was uncommonly prominent and firm to the touch at the pit of the stomach; tender, and even sore, upon pressure being made. From this time, by his own report, there were twenty recurrences of the hæmoptysis and seventeen of the epistaxis; these usually, but not always, *alternating*. Pulse between 60 and 70 per minute; full and hard previous to the hemorrhages, and did not lose this character, even immediately after them, until within a few days of his death. When about to bleed from the lungs (which he could foretell with great accuracy) he had increased sense of stricture about the base of the chest, with more pain, and that always concentrated in the side of the thorax from which he apprehended the flow of blood. There was usually much febrile action and great heat in both the back and front chest; the bleeding continued until the local and general symptoms subsided; relief being very marked; appetite, lost just previous to hemorrhagic attacks, would in the intervals return. These symptoms and their relief thus alternated without any special difference. At one time, while the patient was complaining of severe pain in the chest, Dr. S., on auscultation over the spot, heard a distinct crepitous rale, which, after the subsequent hemorrhage, had disappeared. Seemingly a transient inflammation was established, which at a certain stage, was uniformly relieved by the natural bleedings. Epistaxis was preceded by pain in the head and nose, with a feeling of fulness and of heat in the nostril from which the blood was about to flow; in *these* bleedings, the first discharge was of a dark colour, but soon it became florid red, with increased sensation of heat. From the lungs, the first flow of blood was rather dark, but in a short time it was of a bright vermillion; occasionally (and more particularly in the first bleedings), the blood was diffuent, and remained fluid; but in the latter attacks it coagulated firmly. There was but one discharge of blood *per anum*; this he himself referred to the fact of having felt much of it run into his throat during epis-

taxis, and to his swallowing the same. The blood from the lungs was of a bright arterial hue, and, mixed with a frothy mucus, came away after coughing, and did not immediately coagulate. The last recurrences of bleeding were on the 10th inst., when it lasted sixteen hours; on the 12th, about twelve hours; and one a few days subsequently, a small quantity. Death took place on the 23d of February.

The patient undoubtedly bled from some general constitutional cause; the vital force being depressed in connection with, or perhaps wholly dependent upon, disease of the liver and a diffusion of the bile through the circulation.

The treatment was various; an effort was made to relieve the system from the bilious derangement, but unavailingly; astringents in great variety were also employed without the least apparent benefit; strict diet, with a like result; leeches, blisters, issues were all tried without the least good effect. The bleedings would recur with nearly the same intervals, whatever was done. After very copious hemorrhage, the interval was somewhat longer between two attacks. The patient's family estimate the amount of blood lost at more than two gallons; there were about forty recurrences of hemorrhage, and the quantity lost was rarely, if ever, less than a gill at one time, usually being much more. Remedial measures being found of no avail, they were finally abandoned, and a generous diet was allowed. Towards the close of his life, the mind wandered; a comatose state succeeded, and persisted for about two days, when death took place.

Autopsy, five hours after death.—Rigidity slight. At apex of right lung, posteriorly, was a small cavity, as large as a shagbark, containing pus, and in its immediate neighbourhood were a few small, opaque, tuberculous masses. In the same lobe, anteriorly, there was a mass of dense, white, or grayish-white tissue, occupying about the space of a cubic inch, and having very much the appearance of diffused, gray, semi-transparent tubercles. The remainder of this lung, as well as the left lung, was considerably congested, especially in the posterior portions. There were slight adhesions of both lungs in front, and exceedingly firm adhesions of both lungs behind. Two or three ounces of serum in each side of the chest. *Heart* normal; left side contained considerable liquid blood, which soon coagulated. About four ounces of clear serum in pericardium; no adhesions. *Liver* large, dense, and firm; studded and filled with small nodules of yellowish-white colour, probably tuberculous. Gall-bladder and bile natural. *Spleen* quite soft and friable; *stomach, kidneys, and other organs* healthy. There was some clear serum found in the peritoneal cavity, but no injection of vessels, and no adhesions. The blood which escaped from the heart, as mentioned above, as well as that which escaped in removing the lungs, was at first unusually liquid, but soon coagulated. No appearance of paleness in any organ, as if from loss of blood.

Dislocation of the Humerus—Easy Manual Reduction without the Use of Ether.—Dr. CABOT called the attention of the Society to a method of reduction in cases of dislocation of the head of the humerus into the axilla, viz., by standing above the patient, and fixing the scapula with one hand, or by a foot placed on the shoulder, and pulling the humerus directly upwards; the antagonism of the deltoid muscle is thus avoided, and the bone usually slips instantly into the socket. The case which prompted these remarks was that of a stout farmer, upon whom very violent efforts at reduction had been unsuccessfully made under medical supervision, in the more ordinary manner, even to the extent of excoriating the arm. The dislocation occurred on a Saturday, and was reduced, instantly, by the above method, by Dr. C., on Sunday, at

the Hospital. Dr. Cabot remarked that he had been for some time in the habit of employing this method, and with uniform ease and success, but never before in a case in which other efforts at reduction had been made; he had, consequently, supposed that his cases had been remarkably easy and favourable ones. The result, in the above instance, had induced him to refer to the method employed.

Dr. J. M. WARREN said that he had often tried this method, but had not always been successful; the want of success arising from the great pain caused by the attempt to elevate the arm above the shoulder-joint further than a right angle. In one instance, having been unable to reduce the dislocation by the ordinary plan, with the heel in the axilla, and having sent out for ether, while waiting for it, it had occurred to him to try the plan above referred to. [The patient was made to kneel upon the floor, the operator standing in a chair, and making extension upwards, so as to nearly lift him from the ground. The pain thus produced caused some fainting, and the bone was at once restored to its place. It was certainly a means always to be thought of when the surgeon was without assistance.]

Dr. PARKMAN asked if such dislocations were not *always* easily reducible by means of etherization. He had thus found them in his own practice. [This was acknowledged; but it was remarked that ether, not being always at command, the surgeon usually attempts reduction without waiting for it to be brought; and if any one mode be easier, or more likely of success than others, it is desirable to know it.]

Dr. COALE referred to a case which he had treated, and in which much force had previously been unavailingly used to reduce a displaced humerus; the mode advocated by Dr. Cabot, and which was first advised by Mr. CHARLES WHITE, of Manchester, England, about the middle of the last century, was wholly successful, and very easily so. [The patient, in Dr. Coale's case, dying thirty days after, an opportunity was afforded for examination of the joint. For a full description of this interesting case, see *Catalogue of the Cabinet*, Specimen 172, p. 39. Mr. White's method has been revived by M. Malgaigne and Mr. Syme; the patient is, by them, placed in a *recumbent* posture; the surgeon sits behind him (for good representations of the positions of surgeon and patient, see Druitt's *Vade Mecum* and Sir A. Cooper's *Fractures and Dislocations*); the scapula being firmly fixed, "the arm is raised from the side and drawn straight up by the head, till the bone is thus elevated into its socket." (Druitt.) Mr. Fergusson (*Practical Surgery*) points out the modifications of Mr. White's method, as practised by Malgaigne and Syme. Mr. White suspended the patient, by the injured arm, from the ceiling.—SECRETARY.]

Use of Lemon Juice, and of other Remedies, in Rheumatism.—Dr. PUTNAM asked if any of the members of the Society had found *lemon-juice* to be of any service in rheumatic affections. He had observed some beneficial effect, as he believed, in the case of a child, but had not often tried it.

Dr. STORER mentioned the case of a woman, with rheumatism, at the Massachusetts General Hospital, who took, at one period, fourteen tablespoonfuls of the juice of lemons, daily, and for several days; there was no purging, and no abdominal pain; little, if any marked effect upon the disease; in many instances, no effect at all is observed; in some, it has been thought noticeable.

Dr. J. B. S. JACKSON referred to two or three cases. No effect.

Dr. C. E. WARE gave to one patient one-half a tumbler of lemon-juice, daily, for ten days. No effect; no inconvenience.

Dr. SHATTUCK had observed decided benefit from the use of lemon-juice in

three or four cases of rheumatism. One patient, who had had two attacks, found great advantage in taking the juice; colchicum was, in his case, of far less avail. In certain cases, Dr. S. had seen no effect whatever from the remedy.

Dr. BOWDITCH had observed no effect from the lemon-juice. Whatever be the remedy, if emesis and catharsis he excited, relief is generally afforded.

Dr. J. B. S. JACKSON spoke of the well-known uncertainty of remedies in this disease.

Dr. COALE referred to the bad quality of much of the colchicum on sale, and to its variable strength.

Dr. BETHUNE, when affected with rheumatism, had found he could take no more than fifteen or twenty drops of the wine of colchicum without purging being induced, and which always aggravated the disease, which he considered, in his own case, to be subacute. Dr. B. said that a more accurate and discriminating classification of rheumatic cases is desirable; some cases yield readily to colchicum; others do not, in the least. He had found quinia of service.

Dr. STRONG believed that, to do any good by purgation, the latter must be very thorough, and to the extent of *fully clearing* the bowels, not merely irritating their mucous membrane.

Dr. PUTNAM agreed with Dr. Strong as to the efficacy of purgation in rheumatism, and recommended the combination of rhubarb with the colchicum; the action of the latter is better and more thorough. [At the next subsequent meeting, Dr. Putnam mentioned a case in which, under the use of purgatives and colchicum combined, violent vomiting and purging were induced, and the disease was nearly subdued in twenty-four hours. Sulphate of quinia was given, in the dose of from 15 to 20 grains, daily, for four days, with marked benefit. Dr. WATSON mentions the sudden and complete yielding of the disease when powerful purgation and emesis are caused by colchicum. (*Practice of Medicine.*) He adds that, unless the affection disappear after such violent action on the alimentary canal, it will be useless to push the colchicum further.—SECRETARY.]

Dislocation of the Thumb forwards.—Reported by Dr. MINOT.

A lad, in running, fell, and was found to have dislocated the left thumb. On examination, the thumb was shortened and strongly extended, so that the second joint was brought near to the metacarpal bone, and projected obliquely upwards. The head of the bone could be felt in the ball of the thumb, in front, and a little to the outside of the metacarpal bone; the bones of the thumb were, consequently, a little oblique, compared with the direction of the metacarpal bone. The second phalanx of the thumb was flexed upon the first.

The patient having been etherized, reduction was easily effected by employing extension, with a slight rotary motion.

Dr. Minot was not aware that this form of dislocation was considered rare until he met with a statement by Nélaton (*Eléments de Pathologie Chirurgicale*, t. ii. p. 423), that but three examples of it are on record, to which M. Nélaton adds a fourth.

Opiates in Peritonitis and in other Inflammatory Affections.—Dr. J. B. S. JACKSON met with a physician, while travelling, who mentioned having had great success in the treatment of peritonitis by opium, freely used. Dr. J. said that he was inclined to believe such a treatment would be very efficacious

in many inflammatory cases; he instanced pleurisy and rheumatism, and, moreover, would have great confidence in such a treatment of *non-serous*, as well as of *serous* inflammations.

Dr. HOMANS spoke of the beneficial action on the skin produced by opium in many cases; in abdominal tenderness, with diarrhœa, small, often repeated doses are very serviceable.

Dr. STORER thought the free use of opium in cases such as Dr. Jackson had mentioned, would have a tendency to constrict and dry the skin.

Dr. C. E. WARE relies upon opium in pneumonia. He thinks that, when largely given, it does not constrict the skin, but induces diaphoresis as readily and fully as does Dover's powder. He has not bled for many years in pneumonia.

Dr. STRONG often gives opium to the point of incipient narcotism in acutely inflammatory cases. He gives the pure opium as well as Dover's powder.

Double, Self-adjusting Stethoscope.—Dr. BOWDITCH introduced to the notice of the Society a new stethoscope recently invented by Dr. Camman, of New York city. Dr. B. said that heretofore he had no belief in any one form of stethoscope being much better than another. Dr. Williams, of London, had long since suggested a form, constructed on scientific principles, which, in Dr. B.'s opinion, was a *share* better than any other, until Dr. Camman's was presented to him. Between the value of Dr. Williams's and of Dr. Camman's no comparison could be made. The instrument constructed under the direction of the latter gentleman, *intensifies*, to an extraordinary degree, every sound heard in auscultation. For instance: the puerile respiration of a child seems almost like the rushing of a whirlwind. One scarcely believes his own senses at the first inspiratory act that is heard. In cases where the healthy respiratory murmur is very quiet, perhaps scarcely recognizable by the naked ear, or when examined with Dr. Williams's stethoscope, it becomes quite manifest while using Dr. Camman's. So with morbid sounds. Dr. B., although he had very recently received the new instrument, and was consequently but little accustomed to its use, had been able to discover râles and rubbing sound, only recognizable after the closest attention by the ear alone, and that too after their presence had been ascertained by means of Dr. Camman's apparatus. The reasons for this intensity of sound appeared to be chiefly two: 1. Both ears of the observer are acted upon at once. 2. The ear-pieces of the instrument, fitting tightly into the meatus of both ears, all *external* sounds are more thoroughly cut off, and the mind of the auscultator is thus forcibly drawn to the phenomena taking place within the thorax. By this instrument, moreover, the much mooted question, whether the column of air, or the material composing the stethoscope, conveys the sound, is decided in favour of the column of air. The proof of this consists in the following facts: 1. Dr. C.'s stethoscope consists of no less than *five* different media, viz. ebony, an elastic tube lined with metallic wire, metallic tubes, and finally, ivory ear-tubes. According to all acoustic theories, such a variety of media should not transmit sound as well as a more homogeneous substance. 2. Dr. Camman, by experiment, found that when the base of his stethoscope (*i. e.* the bell-shaped portion that rests upon the chest) was made solid, *all* sound was lost. Dr. B. concluded by recommending the new instrument to the candid examination of the members of the Society.

Tumour of the Breast.—Dr. CABOT.—Mrs. M., 40 years of age, first noticed a hardness and swelling in the left breast about five months since; it increased

rapidly; at first with pain, but latterly there has been none. Dr. Cabot removed the breast on the 11th inst.

On the 14th, there were cough and some streaks of blood in the sputa. R. Pulv. ipecac., Pulv. opii, āā gr. ss.

17th. Some suppuration under flaps of wound.

19th. All sutures came away.

20th. Discharge from axillary corner of wound is quite considerable.

March 1. Dress with spirit and water; patient may sit up.

3d. Granulations flabby, dress with resin cerate.

7th. Granulations more healthy.

9th. Discharged, nearly well.

Microscopic Examination of the Tumour. By Dr. JOHN BACON, Jr.—Sections from different parts of the tumour exhibit under the microscope a dense cellular tissue, with a small proportion of cells and free nuclei, having the characters of cancer. In some parts small granular cells, which may be epithelium or secretory cells from portions of the mammary gland not invaded by the disease; oil-globules and molecular granulations occur as usual.

Tumour of the Upper Maxillary Bone—Excision.—Dr. J. MASON WARREN exhibited a specimen in which the whole maxillary sinus was occupied by a tumour of fibro-plastic appearance. Towards the angle of the jaw the tumour had made its way out of the sinus by an opening, and insinuated itself under the zygomatic process, being firmly attached to the external part of the jaw at that point. The history of the case is as follows:—

The patient is 21 years old, and has just graduated from college. Many years ago he had the last molar tooth in the left upper jaw extracted. Nine months since, after a fortnight's pain in the face, a small tumour appeared at the edge of the jaw, whence the tooth had been removed, which ulcerated and extended. In July, an operation was performed to remove the posterior edge of the jaw, with the disease, but the wound never healed. Lately, the front part of the maxillary sinus had been projected forwards, making quite a prominence on the cheek. The eye was slightly protruded, and the sight somewhat impaired. Within two months, a large ulceration, or perhaps it ought rather to be called a tumour, occupied the posterior part or angle of the upper jaw; its edges projecting so much as to interfere with complete closure of the jaws, and requiring to be occasionally trimmed off, which was done by the patient himself, but not without some bleeding. The discharge from the tumour was not very copious; hemorrhage took place from it from time to time. The finger being carried into the mouth, encountered behind the ulceration a rounded tumour, lying close upon the coronoid process of the lower jaw, and leading to the supposition that the tumour had made its way out behind, from the maxillary cavity. The microscopical examination was of a doubtful character, but rather tending to establish the malignancy of the growth.

The patient being informed of the probable nature of the disease, and that it might have already made its way out of the maxillary sinus into the cheek, decided, as his case otherwise appeared hopeless, to have the operation performed, which was done Jan. 28, in the following manner, etherization having been first employed.

An incision was made from midway between the orbit and the ear to the angle of the mouth, with the concavity backwards, the better to expose the tumour, which tended in that direction. The flaps were rapidly dissected up, the large vessels tied, and a freezing mixture applied to the surface so as to stop the bleeding from the small vessels; the ether being used at the same

time, and the patient again brought fully under its influence. The first incisor tooth was extracted, and the soft palate, or rather mucous membrane covering the hard palate, cut across, where the superior maxillary joins with the palate bone. The bones were now quickly divided; first, the zygoma; next, the external angular process of the malar bone; third, the nasal process of the superior maxillary; and, finally, the junction of the two maxillaries, by the cutting forceps, one blade of which was introduced into the mouth, the other into the nostrils. The whole bone was now seized with strong hooked forceps and slightly depressed, so as to expose the superior maxillary nerve in the bottom of the orbit, which was divided by the scissors; and, by a few more strokes of the knife, the whole mass was removed. Three or four vessels were tied, but the hemorrhage was not great.

An examination of the tumour showed it to be of a fibro-plastic character. It occupied the whole maxillary cavity, had made its way out behind, and turned up on its posterior wall under the zygoma; but it adhered so firmly to the maxillary bone as to come out with it enveloped in a cyst.

The edges of the wound were approximated by sutures, and cold-water dressings applied. In a month the patient had so far recovered as to go home. Double vision was experienced for some days after the operation, but the control of this faculty was soon regained. The loss of sensibility in the integuments, consequent on division of the nerves, was partially restored, and is constantly improving.

February 27. Exfoliation from the right Lower Jaw after Extraction of a Molar Tooth.—DR. MORLAND showed a piece of the lower jaw, an inch and three quarters in length, by three quarters of an inch in breadth at the widest part, and which comprised several entire alveoli. The patient from whom the specimen was taken is a very tall man, of strong constitution, 45 years of age. A decayed and ulcerated molar tooth was extracted from the right lower jaw after very violent efforts, by a dentist, on the 15th of December, 1853; the crown being broken off, after using two instruments, and the roots pried out by main force afterwards. Pain and swelling, which had, to some extent, previously existed, continued and became aggravated after the above operation, and extended to the neck. The patient, finding two sound teeth loose in the vicinity of the former, took them out himself easily; and, on the 2d of January, perceiving a portion of bone loose in the site of the extracted tooth, he used a penknife as a lever, and turned out the specimen shown. Pain and swelling somewhat abated afterwards, but a numbness “of the lip and of three front teeth,” as the patient describes it, followed—with shooting, neuralgic pains, particularly when the head was inclined to the right side. An aggravation of the pain and swelling occurred January 24, the latter increasing until it extended from the eye to the collar-bone, accompanied by soreness of the throat, loss of power of articulation, and great difficulty in opening the mouth. This state of things was relieved after profuse discharge of pus by the mouth, seven or eight days from the recrudescence of the trouble. Shortly after, pus in large quantity was evacuated externally from just beneath the right lower jaw. Convalescence was gradual after this; the patient has been, for a period of nearly three months, almost wholly incapacitated from attending to his business, and for nearly that time has suffered pain and excessive inconvenience in deglutition, articulation, &c. His countenance has a pale, sallow hue, and plainly indicates that his system has felt the effects of the injury very severely. Several smaller pieces of bone came away during the above period. Dr. M., considering the amount of injury

and disturbance unusual from so common an operation (although much violence was used), inquired particularly as to the patient's occupation, and whether there were anything to which he was exposed likely to affect the bones. He is occupied in a chemical laboratory; he states that he has never been exposed to the fumes of phosphorus in a free state; has had much to do with the various *phosphates*; has dealt largely in muriatic acid, but is unaware of any ill effects therefrom; he is quite confident, however, that the being so much in an atmosphere of hydrochloric acid vapour has caused excessive *leanness* in his case, and believes it always does so; patient has manufactured iodine, largely; has often been troubled by its irritant effects on the air-passages—not otherwise, that he is aware of; has handled pyroligneous acid in large quantity.

May 1, 1854.—Patient reports that the numbness (termed by himself "*paralysis*," and consequently it must be a *marked* sense of benumbing) of the lip and chin still continues, and that there is also pain in the jaw, at times severe; the whiskers refuse to grow upon the right side, over the seat of injury, which, as the patient remarks, gives him a rather "sinister look."

Cancerous Disease of the Rectum and Vagina.—Dr. MINOT reported the case. Mrs. G——, æt. 48, laundress, widow, having borne four children, had always enjoyed good health until June, 1853, when she began to have, without known cause, frequent, small, bloody, painful dejections, accompanied by much tenesmus and dysuria. She had perceived a tumor in the abdomen for some months previously.

On the 20th October, when she applied for relief, she was pale, sallow, and feeble, with a clean tongue and a pulse of 94. She had been losing, according to her own statement, half a teacupful of blood by stool daily. The discharges from the bowels were scanty and clay-coloured, and there was a frequent desire to pass urine, and difficulty in voiding it. On examination *per rectum*, the caliber of the intestine was almost blocked up by a large, smooth, irregular mass, apparently covered by mucous membrane. *Per vaginam*, a similar state of things existed, the canal being obstructed by smooth, irregular masses of cartilaginous bardness, which projected into its caliber. The os uteri could not be felt with certainty. The diseased mass was not movable, and gave no pain when pressed by the finger. On palpation of the abdomen, a smooth, hard, round tumour of the size of an orange was felt in the left iliac fossa. It was movable, and shifted its position with the motions of the patient.

Until her death, which took place Feb. 19, 1854, Mrs. G. had a constant, profuse, offensive discharge from the vagina, which was generally dirty-coloured, sometimes bloody. There was also frequent desire to empty the bladder, and difficulty in doing so. She had little or no pain except during her last few days, though she occasionally complained of much uneasiness or distress in the abdomen. The bowels were costive early in December, the discharges from the bowels began to come *per vaginam*, and, on examination, a large communication was found between the vagina and rectum. She menstruated regularly, her last period beginning January 28. During the last fortnight she vomited everything taken into the stomach, though nothing was found in the appearance of the organ after death to account for this symptom beyond injection of the cardiac extremity, and an extremely corrugated state of the mucous membrane. The liver was large, fawn-coloured, fatty, and contained much fluid blood. The gall-bladder was greatly distended with bile.

Dr. J. B. S. JACKSON, who examined the diseased pelvic viscera, gave the following account of the appearances:—

On dissection, there was found deep ulceration of the rectum, and of a well-marked malignant character, commencing about an inch from the anus, extending upwards two inches or more, and involving the whole circumference of the intestine. The cellular tissue was affected so that the parts were very firmly bound down to the sacrum. The disease extended also to the upper part of the vagina, and there was a direct opening into it from the rectum, effected by the process of ulceration, and sufficiently large to admit two fingers. The os uteri was somewhat ulcerated, but the uterus itself was not much diseased. The whole posterior half of the bladder, however, was very much thickened and indurated, having generally a scirrhus appearance, without any encephaloid deposit, which last was quite marked in some parts of the rectum; the inner surface was red, roughened, and evidently inflamed, though nowhere ulcerated; otherwise, the bladder was perfectly healthy.

Tumour connected with the Cerebellum.—Dr. J. B. S. JACKSON reported the case, of which he had lately made the dissection. The mass was about the size of an English walnut, perfectly defined, firm to the feel, partly made up of three or four small cysts, and partly of a solid whitish substance. Externally, it was somewhat lobulated, traversed superficially by large thin vessels; and the whole appearance, externally and internally, was such as to suggest the idea of malignancy, though nothing was discovered by the microscope to favour it. The tumour was connected with the under surface of the right lobe of the cerebellum, and appeared to have been formed in the pia mater. There was a very large serous effusion in the lateral ventricles, as usual in such cases; and the fifth ventricle was observed to be particularly dilated. The brain itself was healthy. The patient was a middle-aged man, and by profession a clergyman. Deafness in the right ear was observed two years ago; and the tumour may then have been of some size, though no other symptoms occurred until the following autumn. Then there came on occasional paroxysms of headache and vomiting; and this last was a very marked symptom throughout most of the disease. Last summer the gait became unsteady, and there was towards the last much loss of power, though it was never complete. The intellect also became dull, and since last October, when he gave up his professional duties, he was mostly, if not entirely, confined to the house.

Dr. SARGENT, of Worcester, who was present at the meeting of which the above report was made, spoke of a patient whom he had attended, a lady, 52 years of age, who had loss of memory, some vertigo, slowness of speech with miscalling of words, opisthotonos, and, finally, paraplegia and complete dementia. Dr. S. supposed that he should find, at the *post-mortem* examination, softening of the brain and some affection of the spinal marrow. The patient was ill for from six to eight weeks; on necroscopic inspection, Dr. S. found the substance of the cerebrum the *hardest* he had ever seen, and the spinal marrow was perfectly healthy.

Dr. S. remarked further of this woman, that, although she was only 52 years of age, and had scarcely ceased to menstruate, she had the whole appearance of extreme old age. She had also recently experienced a great deal of domestic trouble.

Ulceration of the Knee-Joint—Amputation.—Dr. CABOT showed the parts removed, and gave a history of the patient, a girl, 16 years of age, who entered the Hospital, April 26, 1853, with disease of the knee-joint of four years' duration. She first observed slight enlargement of the right knee without

known cause; it has never incapacitated her for working or for walking; there has never been pain in the joint except when she was overworked. At the time of her entry at the Hospital, the motion of the joint was limited; the head of the tibia much enlarged; circumference of the joint at upper part of patella fourteen and a half inches, the same at the middle, fourteen inches at the lower part. Blisters, tincture of iodine, and water-dressings were applied until the 29th of May, when there were indications of abscess forming in the popliteal space; swelling, with fluctuation, &c. Poultice.

June 11. Abscess opened last night, and is now discharging pus and clots of blood. Poultice continued.

July 6. Abscess injected with tincture of iodine; a knee-cap was used to support the joint and prevent motion; liniments; issues over the condyles of the femur; tonics internally, &c.

Nov. 20. Patient etherized and the sinus examined; it was found to extend around to the front side of the knee, where there was a large cavity; an incision was made over the site of said cavity and pus was discharged. Flaxseed poultice; much pain; opiates were applied locally and given internally, also stimulants.

23d. Abscess beneath knee-joint opened. Diarrhoea supervening on the 29th, was met by a tonic and astringent combination. Cod-liver oil was afterwards administered.

February 18, 1854. The limb was amputated by Dr. Cabot.

Dr. J. M. WARREN, referring to this case, spoke of its earlier aspect, &c.; there was, at first, only a small bunch upon the knee, which, when opened, discharged serum; an abscess, as above described, subsequently formed; the diagnosis was at first difficult; no dead bone was detected; the muscles were found, on removal of the limb, in a state of fatty degeneration.

Dr. J. B. S. JACKSON spoke of the soft, fleshy, membranous, red formation sometimes observed on denuded bones; he asked if this were not often described as a pulpy degeneration of the synovial or investing membrane? May it not, rather, be frequently only the granulations of inflamed bone?

March 13. Intermittent Headache.—Dr. C. E. WARE reported two cases of this affection, relieved by opium. The first was in a young woman who was suffering from amenorrhoea following typhoid fever. The headache had continued very severe for more than a fortnight, during which time she had tried quinia, iron, and arsenic in full doses. She had been leechd and blistered; nothing seemed to make the slightest impression upon the disease. The headache commenced in the morning and continued till evening.

She began to take opium in two grain doses the sixteenth day of the disease. Soon after, she became easy, and then continued the pills through the day often enough to keep her fully under the influence of the opium, and to insure freedom from pain. She was obliged to continue the pills more or less frequently for two or three days after. She never, however, after the first pill, had any serious return of the headache. The irregularity in her catamenia continued. She experienced no unpleasant effect from the opium.

In the other case, the affection occurred in an old lady, 87 years of age. She was a vigorous woman for her years, and was well, except for the headache. She tried for several days quinia and iron, without the least benefit. She took opium in similar doses to those of the first case; was relieved by the first pill, but was obliged to keep under the influence of the opium for a day or two. She had no serious return of the headache.

Tuberculosis, etc.—Dr. BOWDITCH was called, *February 26, 1854*, to see B. M., male, *æt.* five months. Some months since, the boy fell from his cradle and struck upon his head. No serious trouble remarked, and no *manifest* connection of the fall with present disease. For two months previous to present illness, he had had a pustular eruption on various parts of the body, and had “*drooled*” much, as if troubled by dentition. Both of these affections disappeared on the occurrence of the present attack. For a fortnight before Dr. B. saw him he had not been quite well, as his mother thought, although he had had no evident illness, except that, about the middle of that time, the child, while nursing, seemed suddenly distressed; at these accesses, he would throw his head backward, and seemed faint and gasping, with the eyes rolled up. These lasted only a moment, and immediately he would recover and seem as well as before. They occurred, however, only a few times, and, as no other symptom appeared, little was thought of them except by the anxious mother. On 22d or 23d, he occasionally moaned as if in pain, and a slight torticollis to the right side was noticed. When Dr. B. saw him, he had then turn of the neck permanently, but in a slight degree. No swelling, tenderness, or redness apparent, but the child seemed to suffer when any manipulations were made on the neck. Little appetite, no vomiting. Respiration regular, but with a constant moan. Pulse not slow; skin of moderate temperature. Calomel gr. i. ordered; and Dover’s powder $\frac{1}{2}$ gr. at night and morning.

27th. Restless night. At visit, sleeping quietly. Pulse 130. In addition to the Dover’s powder, 10 drops of paregoric had been given three times.

28th. Easier night. One powder only taken. At visit, brighter, but had refused to nurse, and had been fed with breast milk which he took with avidity. Very irritable; no strabismus; had had four attacks similar to these above described. Apparently a little tenderness about right ear. Pulse regular, quick; respiration easy; no vomiting. A leech below right ear.

Patient remained in the same state, and next day Dr. Channing saw him in consultation and advised—Potass. hydriodat. gr. iv.; in simple syrup \mathfrak{z} ij; \mathfrak{z} ss to be taken once in six hours. Cold water to the head if much suffering. Paregoric, if severe suffering at any time.

March 3d. Patient has been more quiet. Had frequently moved right arm and rubbed hand upon same side of the head and right eye; the accesses of increased suffering less severe, at times low moaning; neck less stiff and right limbs which had at times been restless, were less so. Right fist firmly contracted; thumb bent inward on the palm. Frequent gaping. No real vomiting, but some retching; eructations of flatus after food; no dejection. Urine, in quantity rather more, and less ammoniacal in smell than it had previously been. Pulse rapid and small.

On 2d, Dover’s powder and calomel had been ordered occasionally. Continue them and iodide of potassium as directed. Ol. ricin. \mathfrak{z} j.

The disease steadily advanced. Night of 4th, quiet. 5th. Restless under a domestic remedy and without opiates; subsequently, not very uncomfortable nights till 10th, when he died in convulsions. Previously, he was quite irritable at times, and screaming as if in pain. On the 4th, the eyes tended to the left. There was frequent motion of the right extremities, a partial loss of power in the left ones. The pupils, which were at one time contracted, on 4th were larger. On 7th, strong strabismus. On 9th, deep stupor. On 4th, the breathing was deep, rather slow, and uneven. Occasionally a slight hack, but no severe cough was heard at any time. No other rational, and no distinctly morbid physical, signs referable to the lungs. Pulse on 4th was 128, on 7th, 100. Urine was augmented on 6th. Some tendency to occasional

retching, and a day or so before death vomited a few times. During this period, the same medical treatment was continued except on 6th; 1 gr. of potass. nitrat. was ordered at intervals.

On 10th, the report was, that, after lying for the previous thirty-six hours in more or less stupor, accompanied by evident prominence of the anterior fontanelle and constant strabismus, but with a less firmly contracted fist, he died in convulsions. At 6 A. M. of 10th, *autopsy*, twenty-six hours after death; meninges of the brain very much distended, owing to a large quantity of thin, rather turbid, fluid in ventricles, which, under the microscope, contained pus and exudation corpuscles, and apparently detritus of the cerebral substance. Numerous minute (tubercular) granulations in the anterior commissure, and over the base of the brain. Recent lymph around the optic nerves. The interior of the left hemisphere was broken down by the scalpel throughout a large part of its extent, and a soft white detritus, save in one part, involved the corpus striatum and optic thalamus, and wall of the ventricle. Here the cut surface had a hard, tubercular aspect. Bronchial glands, tuberculous; minute semitransparent granulations were found filling the lungs. They were likewise numerous in the liver, less so in the spleen; a few in the kidneys and intestines; and, finally, two or three, unequivocal in their character, were found on the left ventricle of the heart, just under the pericardium. The voluntary muscles, so far as examined, contained none.

The very insidious nature of the attack, the torticollis, and the universal distribution of the tubercles, Dr. B. regarded as the peculiar points in the case.

Blighted Ovum.—Dr. W. E. TOWNSEND exhibited a blighted ovum of about three months' growth. This was cut open. The umbilical vesicle was very distinctly seen, and the walls of the structure were very thick. Dr. T. reported the following history of the case: "Was called on Wednesday last to see a lady, who stated that she was that day taken with a slight flowing, unaccompanied by pain; that she supposed herself to be between three and four months pregnant; that on Saturday night, two and a half weeks previously, she had slipped down two or three steps at the Fitchburg Railroad station-house, and jarred herself severely, so that, whilst riding home in an omnibus, she suffered greatly with pain in her back; the next day, however, she experienced no inconvenience from her fall, but went to church as usual. From that time, the morning sickness and occasional faintness, which had been prominent symptoms of pregnancy with her, disappeared, and she had felt entirely well till the present occurrence. Horizontal posture, and other appropriate remedies, were tried without avail; and, on Sunday afternoon, after suffering severely, she miscarried, three weeks and a day after her accident."

Spleen enlarged; not the Result of Fever.—Dr. JACKSON exhibited the specimen and reported the case, which he thought interesting from the circumstance of so many of the same kind having occurred here; the organ, in such cases, weighing several pounds, and being rather firm to the feel, whilst the patient had never had intermittent fever, and, in several of the cases, had never been in any part of the country where this form of fever prevails. The weight, in this instance, was between four and five pounds, the density was very considerable, and the enlargement had existed for some months at least. The patient was a middle-aged man, and died of a pulmonary affection of short duration.

Iritis terminating in Staphyloma.—Dr. R. W. HOOPER.—Three cases of inflammation of the iris, terminating in staphyloma of the eye, have been seen at the Massachusetts Charitable Eye and Ear Infirmary in the last two years. They were in Irish patients, one male and two females, between the ages of eighteen and twenty-four.

In the first two cases the eyeball was removed on account of the severe suffering attending the disease, and its doubtful character. As these two cases terminated favourably, and after the interval of two years the patients remained well, the operation in the third case was limited to a removal of the anterior half of the eye, to which the disease seemed principally confined.

In these cases, the first departure from the usual appearance was in the iris becoming of a bright yellow colour, and receding from the cornea; the anterior chamber then became turbid, and the sclerotica yielded near the margin of the cornea, and irregular dark gray masses protruded.

Great pain attended this stage of the disease, not relieved by puncturing the globe; and the operation for removing the eye in the first two cases, its anterior half only in the last case, was followed by entire relief. The patients, at the time of the operation, were under the influence of sulphuric ether.

Since the above was written, the last patient died with disease of the brain at the Massachusetts General Hospital. No return of disease of the eye after the operation. An *autopsy* was refused.

Gleet, its Treatment, &c.—Dr. COALE read the following remarks: A paper by Mr. John L. Milton, in the *Medical Times and Gazette* for May, 1853, on the treatment of gleet, has suggested some remarks on this disease. Mr. Milton divides gleet into three kinds: 1. Dependent upon structural changes or incipient stricture. 2. Gleet not dependent on these changes. 3. Gleet arising from disorder of other structures—the prostate gland, testicle, &c. For practical purposes, I would make a different division—retaining, however, the last, and particularizing other gleet, as to whether it be purely a chronic affection, or whether with it there be more recent gonorrhœa. In the third species of gleet—that from affection of other parts of the genito-urinary apparatus—the treatment must evidently be directed to the affected organ rather than to the lining of the urethra. In the other varieties, the difference of treatment I make is this: when more recent gonorrhœa accompanies it, inducing an acute or semi-acute inflammation, the astringent injections, so useful in a purely chronic case, are hurtful. In these, then, I substitute warm water, or warm mucilaginous injections, and am more particular about the diet until all the recent inflammation is wholly subdued; this effected, resort may be had to astringent injections with benefit, and should be continued until every trace of the disease is obliterated. In using the injections, the effect of habit must be remembered, and the active agent of the injection changed as soon as its power seems to decline. Mr. Milton attaches much importance to the use of blisters in gleet, and argues for them as if they were a new remedy, of which the effect might be doubted. I some time since found out their efficacy in this disease, and have used them freely; indeed, they constitute an important part of the treatment. In very severe cases, I use the blistering tissue, applying it to the inside of the thigh, or to the pubis, or even to the root of the penis itself; but in most cases this is unnecessary, and instead, I use the strong tincture of iodine. The patient is directed to paint a strip on the under side of the penis from the root to the glans, bounding one edge of the strip by the median line. This painting is renewed sufficiently often to get up a vesication. When this surface becomes too sore, it is permitted

to heal, and another strip is painted on the other side of the median line. In this way, alternate blisters can be kept up for any length of time. As to internal remedies, the difficulty of getting a patient to take any of the disagreeable mixtures prescribed, long enough to do any good, has occurred to all who have had to deal with the disease. Some tasteless and convenient remedy is wanted; this, I think, I have contrived: Bals. copaiva and pounded eubebs are made into a mass together, and divided into pills. These can be coated with gelatin. They permit the dose to be regulated very conveniently; from three to four, taken four times a day, generally being the amount given.

Popliteal Aneurism.—Dr. J. MASON WARREN reported the case of a blacksmith, 30 years old, to whom Dr. W. was called by a distinguished physician in a neighbouring city. In September, 1853, this man perceived a small pulsating tumour in the upper and back part of the left leg. This increased slowly to the size of a hen's egg. The knee was bent, and he was obliged to walk with a crutch. The foot was swollen, its motions partially lost, and it was excessively painful. The patient being informed of the dangers of the operation by ligature of the artery, the possibility of paralysis or sloughing of the limb consequent upon it, and of the alternative of the treatment by compression, decided on the former; as he was out of town, could not well leave his family, and it was impossible to have the compression satisfactorily conducted at home.

The femoral artery was therefore tied at the middle of the thigh, and the pulsation of the tumour was at once arrested. The patient was directed to be kept in bed, artificial warmth to be applied if necessary, and, in case of great reaction—the patient being very muscular—blood to be taken from the arm. For a week or two after the operation, the numbness of the foot was much increased, though the pain was relieved. The ligature separated in sixteen days. The patient was seen by Dr. W. some months after, when he was able to walk, having recovered the use of the limb. A small, hard tumour existed at the place of the former aneurism, having an apparent pulsation, which, however, after repeated examinations, seemed to result, and to be communicated from, an enlarged collateral vessel. He was directed to keep still, avoid animal food, and to do nothing that might excite the arterial action.

By recent reports he is quite well.

Herpes Preputialis; Case and Treatment.—Dr. BETHUNE.—A gentleman, from 20 to 25 years of age, presented himself in the early part of February, with this disease. It first appeared after a single exposure last May. He had been under the care of several physicians, who were well-educated men, and had been severely treated. Among other things had had mercury to salivation, and several times had been pronounced cured. The disease has returned five times. The present attack had existed two weeks, and was marked by several vesicles, or rather the remains of them, situated on the inside of the prepuce, near the glans. He was directed simply a saline laxative every third day; lint dipped in a solution of acetate of lead placed between the prepuce and glans, and strict diet. On the week following, the compound rhubarb pill was substituted for the salts, and, soon after, the strength of the lead solution increased. March 12, he appeared quite well, having been two weeks longer than ever before without a return of the disease. A solution of tannin was ordered to replace the lead—and vegetable diet. In the early part of April, he was obliged to fulfil a matrimonial engagement which had been thrice postponed. This was followed by a slight return of the disease.

March 27. Bezoar.—Dr. GOULD exhibited a very beautiful specimen of bezoar, presented to the Society by Mr. Emery Souther, apothecary, of this city. It was taken from the stomach of a deer killed at the mouth of the Mississippi River. *Dimensions:* $2\frac{1}{4}$, $1\frac{1}{4}$, $1\frac{1}{8}$ inches. *Weight:* 2 oz., 2 drs.

The thanks of the Society were voted to Mr. Souther.

Dr. BACON, who had examined the concretion at Dr. Gould's request, stated that it consists of layers of diphosphate of lime, with organic matter, deposited around an angular nucleus which appeared to be a fragment of pottery.

[In the report of Dr. Bacon's analysis of a "factitious bezoar," (Dec. 12, 1853, see No. of this *Journal* for April last, p. 346,) the following should have been added: "The organic matter is very soluble in water, and appears to be a vegetable extract. It contains neither ellagic nor lithofellic acid, and there is no doubt that the supposed bezoar is factitious."]

The following paper was prepared by Dr. W. J. BURNETT, and was read to the Society by Dr. BETHUNE. Remarks relative to the proposed operation are appended:—

Recommendation of an Artificial Cornea as a Substitute for the Transplantation of the Cornea. By JOH. NEP. NUSSBAUM, Assistant Physician in the General Hospital at München.* The object of this article is, as its title indicates, to show the advantages, or rather the full success attending the introduction of an artificial cornea composed of glass, in those cases where there is more or less blindness from opacity of the cornea.

It is not necessary to give a translation of the entire article, and I shall quote only those passages which contain the gist of the subject.

After alluding to the many contingencies for failure attending the bold practice of Himly, of transplantation of the cornea, even by the most skilful operators upon the eye, he says he was led to make experiments relative to what substances would be least offensive as foreign bodies in the healthy tissues, in view of using such for an artificial cornea. After experiments upon his own body, he found that, of many solid substances, glass produced the least irritation, and in some instances scarce any at all. With this fact obtained, he formed a circular cornea of glass, perforated by a hole two-thirds its width. This he introduced into the eyes of dogs, having previously removed a corresponding portion of the cornea. But it was attended with no success; for, aside from the extreme difficulty of removing a portion of the cornea *exactly* the size of the artificial body introduced, there was much disturbance following the introduction of so large a body in so delicate a tissue, such as suppuration, &c., with a loss of the eye in the end.

Thus foiled, he says it all at once flashed upon his mind that an orifice, of the size of a pin-hole, is sufficient to admit a good image of an object, if the eye is placed directly near it; as, for instance, in looking through such a small hole in a piece of pasteboard. With this valuable hint, he made a new trial, forming the artificial cornea after a new model, and of a much smaller size. Its general form was much like that of a shirt-stud, there being a main shaft with a rim on each end; but, instead of being round or circular, both shaft and rims were compressed laterally, being, therefore, of an oblong instead of a circular form. The artificial cornea, thus formed and shaped, was not much

* Die Cornea artificialis als Substitut für die Transplantation Corneæ empfohlen. Von Joh. Nep. Nussbaum. z. Z. Assistenz Arzte im allgemeinen Krankenhause zu München. From Siebold and Kölliker's *Zeitschrift für wissenschaftliche Zoologie*. V. December, 1853, p. 179.

larger than the head of a large pin, and perforated by a hole of an oblong shape and of a correspondingly minute size, as will be seen in the annexed figures.

Fig. 1.

a b

Fig. 2.

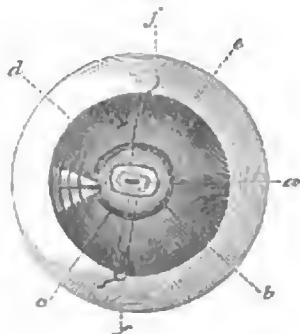


Fig. 1. Glass body, natural size. *a.* Front view. *b.* Lateral view.

Fig. 2. Eye of a puppy, several weeks after the operation, with glass body in cornea, magnified $3\frac{1}{2}$ times. *a.* Glass body. *b.* White opaque circle around glass. *c.* Remainder of pupil. *d.* Iris. *e.* Sclerotic. *f.* Bloodvessels on cornea.

With this new model for a cornea, he proceeded to operate upon the eyes of some puppies. Instead of making a circular incision, as in the first experiments, a simple slit only was here required. In this slit of the cornea, the new body was introduced exactly as a shirt-stud is put in a shirt.

The following is his description of the operation:—

“For the operation are required, a cataract knife, a pair of small anatomical forceps, and, for the emergency, Cooper’s scissors. In the absence of a good assistant, there is needed a lid-holder of Kelley Snowden, and when the eye is very restless, a sharp hook. For the patient, I choose the reclining, and for the operator the sitting position. The pupil being dilated by a strong solution of the extract of belladonna, I narcotize the eye until the bulb remains quiet; then, opening the lids by means of a lid-holder, I place the cataract knife, which I hold as a pen, at right angles on the surface of the cornea, at about one-eighth of an inch from its external border, with the knife’s edge directed towards the inner (not the outer) canthus,

whereby both borders of the wound are made of equal thickness. I then plunge the knife into the cornea, until it reaches the anterior chamber; then holding the instrument at a somewhat obtuse angle, I carry it inwards, making an incision one-eighth of an inch in length. The knife is then withdrawn from the wound by carrying it backwards.

“As the wound is small, it gapes open but little, and the aqueous humour flows out very slowly; but, quick as possible, I seize the glass cornea with the pincers, and insert it in the incision, as a button in a button-hole. All this insertion must be done very quickly, for upon the time occupied depends the reaction and disturbance which are to follow. In conclusion, I remove the lid-holder, and glue up both eyes.

“The quantity of aqueous humor that escapes during the operation, is in exact ratio with the disturbance and trouble that follow. When little escapes, the iris is little irritated, and the lens but slightly disturbed. In some instances, I was fortunate enough to lose only two drops of the aqueous humour; these cases healed very quickly, and I was convinced that neither iris nor lens had been at all disturbed. In those cases where the incision was too large, and did not hold the glass, the operation proved a failure, and I sealed up the eye, allowed the wound to heal, and afterwards operated again with better success.”

I need not here give the after-treatment, as laid down by the author. It must vary, of course, according to the patient, and the care with which the operation is performed, and will suggest itself, *pro re nata*, to every intelligent oculist.

In regard to some of the sequelæ, he says: “In all cases, there appeared, on the first day, a universal conjunctivitis, and a ceratitis, with some disturb-

ance of the cornea; in several cases, an onyx. The former disappear quickly; and the abscess of the cornea heals usually in eight to fourteen days, when the glass, inclosed in an exudation, ceases to be objectionable to the cornea. Iritis I have observed only when the operation was so conducted that much aqueous humour was lost and the lens impinged upon.

"In regard to the appearances in general, my patients seemed as free from pain after the eighth day as before, and the general aspect of the cornea appeared much less disturbed than in those cases where a portion of the cornea was removed (as in transplantation of the cornea). The appearance of the eye is not particularly bad; around the glass there is a small, white, opaque circle, to which extend, from the border of the cornea, one or two small bloodvessels. The eye has no irritability, and no photophobia even to glaring light."

As to the intimate changes which ensue in the tissue of the cornea, from this operation, the author says: "The sections which I have made during the various stages of healing, presented anatomical changes corresponding to the different sequelæ. The perfectly healed cornea I have often observed microscopically. I found the fibres in the vicinity of the glass always more or less troubled, and slightly lengthened; close to the glass, they presented a wave-like aspect, and their usual parallelism was wholly wanting."

Such is a brief abstract of Nussbaum's account of his new operation. As yet, his experiments have been only upon the lower animals, and the success he has had with dogs makes him confident of a like result in man.

The artificial cornea must, of course, be made with great care, and its size and various proportions varied according to the eye to receive it. The author recommends the rock-crystal as the best material out of which this body is to be formed.

These experiments, from their success, have excited no little attention in the locality of their occurrence, and Von Siebold, a name too well known in science to require mention here, and one of the editors of the journal in which this article was published, carefully examined some of the dogs operated upon. He was surprised to find so little disturbance from the foreign body. Indeed, he says, the animal suffered no inconvenience, the secretions of the eye were not diminished or increased, and the animal winked, or otherwise used the organ, as in the natural state. He considered the subject of sufficient importance to have a lithographic plate made of one of these animals, with details of the parts. At all events, the subject is not lacking in ingenuity; and it having been shown that a perforated glass body, of small size, can be introduced in the cornea, and there remain harmlessly—this, certainly, is an important fact learned; but the application of this operation upon man can alone determine the visual relations of this body, and the greater or less degree which its orifice can transmit rays of light for the formation of an image on the retina. Certain it is, however, that the optical principle here adopted is sound in theory.

Dr. BETHUNE, though he agreed with Dr. Burnett in the opinion he expressed of the great ingenuity shown in this form of artificial cornea, yet thought its practical utility extremely doubtful. The aperture which forms the pupil is made so small (probably to retain the aqueous humour by capillary attraction) that a very perfect adjustment must be made and retained, or vision will be prevented. So small an opening would be liable to become clogged either with foreign substances, or with the secretions of the eye itself, and in getting rid of this obstruction by passing it into the anterior chamber, there would be danger of exciting destructive irritation of the organ. After much difficulty, Mr. Griffiths, a glassblower of Roxbury, has succeeded in making for Dr.

Bethune a very perfect and beautiful glass cornea, and he will test it, if a suitable case presents itself.

Dr. DURKEE considered the operation described in the communication from Dr. Burnett as a specimen of very ingenious ophthalmic surgery. He had, however, great doubts as to its practicability on the human subject. The operation might *possibly* be successful, considered merely in a surgical point of view, and yet be an entirely useless one to the patient. It seemed to him that the laws of optics, in regard to the refraction of the rays of light in its passage through the cornea, the aqueous humour, the crystalline lens, and the vitreous humour, each having different powers of refraction, and each having a different density and different shape from the other, would be disturbed in a manner that would prevent the formation of a distinct image of objects on the retina. Dr. D. was not, therefore, inclined to coincide with the opinion of Dr. Burnett, as expressed in the closing sentence of his manuscript. The rays of light, it seems, are to be admitted through a very minute aperture. This aperture will act in the same way as a small perforation does through a card. And how is this? The rays must cross each other in their transit through this opening. They must, consequently, enter the aqueous humour greatly divergent; and thus the very first step in the series of refractions is reversed. How is it possible for these divergent rays to be changed in their direction, so as to pass through the crystalline lens in the normal manner? The rays of light, as they pass from the cornea through the aqueous humour in the sound eye, are rendered more convergent than while passing through the cornea. This increase in their convergence through the aqueous fluid is necessary in order that the rays may reach the lens in a proper manner. But Dr. Durkee could not understand how it was possible for this order of refractions to be secured after the surgical operation in question had been performed. For the rays traverse no cornea, and the shape of the aqueous humour must be altered, and the light be confused. The different chambers may be illuminated, to a greater or less degree, through the small opening in the glass stud; but that a distinct image could be spread out upon the expanded surface of the retina, appeared to him a matter of great doubt. In the account furnished by Dr. Burnett, it is not stated that the animals operated upon were enabled to see. Ophthalmic surgery has accomplished wonders, it is true; but in this instance the principles of optics will be so much disturbed that the intended result of the operation will almost certainly be defeated. Such, at least, is Dr. D.'s opinion.

Dr. D. thought the chances for distinct vision would be greater, if the glass were solid instead of being tubular. The glass would then be a substitute for the portion of cornea that had been removed by the operation. It would present an unchangeable uniformity for the admission and transit of the rays of light. But it is scarcely to be supposed that the aqueous fluid occupying the tube—and there being no way for confining this fluid, or for regulating its shape, or for preventing the constant movement of its particles—can possibly preserve any fixed form. It will be in continual agitation except during sleep. If we attempt to look at an object in water while the water is in a state of agitation, we find that vision is disturbed; we see the object in broken fragments and assuming all manner of distortions; and in the case before us, the aqueous humour will be constantly oozing out through the opening in the glass, and irrigating the surface of the eye. How is it possible, under such circumstances, for the rays of light to be transmitted towards the crystalline lens in the proper, regular order, without which there can be

no correct vision? The practicability of the operation, whether considered as a matter of surgery, or in its relations to the principles of optics, remains to be proved. Dr. D. demonstrated his ideas upon this subject by drawings upon a blackboard.

Dr. BETHUNE exhibited to the Society specimens of the glass cornea, which with great trouble he had procured. The same workman will doubtless now be able to furnish others, after this model, with greater ease, and promptly, should there be found a use for them.

Dr. WILLIAMS made the following remarks relative to the operation :—

The *Union Médicale*, of Paris, in some of its numbers for January, 1854, alludes to the operation proposed by Dr. Nussbaum. The proposition is condemned by the editor in strong terms, and characterized as “worthy of a German brain.” A subsequent number contains two letters—one from a German physician, who repels the imputation against his countrymen, as entirely too sweeping, but coincides with the editor in his estimate of the value of the experiments made upon animals, and deprecates their repetition upon the human eye—the other letter is from Dr. Deval, of Paris, of some authority in ophthalmic surgery; and contains proof that the plan proposed by Dr. Nussbaum has in it nothing of novelty, as not only had the insertion of an artificial cornea been proposed and practised upon animals, but the artificial substitute had been made of similar form to that now advocated. Dr. Nussbaum, he shows, has merely revived an operative procedure which had become obsolete. He refers to the discussions to which the subject had given rise in Germany, and states that the experiments on the human eye have been condemned by Dr. Pauli, of Landau, and other distinguished authorities; and further, that Dr. Nussbaum had recently performed his operation on a patient, with no other result than a total failure.

[MALGAIGNE writes as follows in his *Médecine Opératoire*, p. 406 (4th ed. 1843): “Pellier was the first who proposed excision of the natural cornea, and the fitting of a glass cornea within its circumference. This extraordinary (*bizarre*) idea has never yet been applied to the human eye, and doubtless never will; it has not even been tried upon animals.” It has only been shown that the glass stud can be inserted and worn in the eye of an animal, and not that the animal could see therewith. The eye of such an animal, previous to the operation, is supposed to be in a healthy state; the human eye must be, or have been, in a diseased and abnormal state, to require any such attempt at giving a new cornea;—would not this fact influence the result? If even it be proved that the animals thus treated can see, no such success could *therefore* be predicated for man.—SECRETARY.]

Abscess of the Lungs without previous Symptoms or any evident Cause.—Dr. COALE reported the case of A. G., æt. 26, a carpenter, who considered himself in perfect health until Wednesday evening, February 8, when he was taken with a violent “cramp colic,” referable to the right iliac or hypochondriac region. His physician partially relieved him, by opening his bowels. Costiveness again occurred, and the pain returned, so that on Saturday night Dr. C. was sent for in consequence of dissatisfaction with the physician in attendance. Refusing to visit at that time, Dr. C. did not see him till Tuesday, 14th. Found great tenderness midway between right costal cartilages and crest of ilium of same side. Bowels costive. Tongue furred. Pulse 80. Purged gently and blistered the spot, which perfectly relieved symptoms, so that on Wednesday, 22d, eight days after, Dr. C. paid him the last visit he deemed necessary for a week. On the next Monday, February 27, he came to report himself at Dr.

C.'s office. He was costive, but otherwise well, and some aperient pills were ordered. On Saturday, March 4, Dr. C. was again sent for. The patient had been improving in general health and strength until Tuesday afternoon, when he was taken with a sudden tickling in the throat, and on coughing a gush of pus took place from his mouth, amounting in the course of two or three hours, as the family said, to the better part of a pint, half of the quantity coming at the first gush. When Dr. C. saw him he was sitting up, and very comfortable while in that position. Pulse 80. No unusual heat of skin. No pain. Cough at times, with expectoration of a half mouthful of fetid pus. Lying down instantly brought on cough. He took this position at Dr. C.'s request, and was soon compelled to rise, when he covered the bottom of a handbasin with pus immediately, it coming up very freely; R. Elix. opii et vin. ipecac., as occasion required. Being deprived of the use of his left hand, Dr. C. could not examine the chest, but this was done the next day very thoroughly by Dr. OLIVER. Dulness all around on the right side from outer edge of cartilages to sixth rib. There were sonorous, sibilant, and gurgling râles on that side, over the dull part; and some of these continued up to the clavicle. Under these circumstances, the previous good health and well being for the ten days before the gush took place; the sudden gush of pure pus; the dulness of the inner part of the chest; the mixed râles; we could not doubt the existence of an abscess of the lungs. No particular treatment was used, as none seemed necessary. Nature had a certain piece of work to do, and seemed fully able to do it. Dr. C. visited him until Monday, March 13th, the general symptoms not amounting to anything worthy of note during this period, except the necessity of sleeping in his chair, which apparently brought on a temporary swelling of his legs. Wednesday, 15th, he went out. Thursday, 16th, he called at Dr. C.'s house; no excitement of pulse, good appetite and digestion; slept well; coughed very little; expectoration very little. Saturday, 18th, again reported himself as doing very well. Saturday, 25th, very well in all general and apparent circumstances. Dulness as high as eighth rib. A feeble respiratory sound before this. No râles. Face of a good healthy colour. Strength good. In short, no marks whatever of the invalid about him, except the physical signs just mentioned.

To conclude: 1. The case was evidently one of pulmonary abscess. 2. It came on without any previous ascertainable cause, either external or in the system of the patient. 3. It was not preceded by any appreciable symptoms. 4. It got well without any treatment being necessary.

Dr. Coale added that these peculiarities, so far as he had been able to ascertain, make it a unique case, particularly the first and second points.

External Use of the Tincture of Aconite. Three Cases.—Dr. STORER observed that, after the discussion which took place a few meetings since upon the effect of aconite, he had determined to present to the Society several cases in which he had administered it at the Hospital. He had, however, been unable to analyze the cases, and would, therefore, offer but these three cases of about sixteen which he had treated; and they among the most favourable.

M. E., æt. 45, entered Hospital, June 4, 1850;—six months previous to entrance was attacked with pain in lumbar region and left lower extremity, most severe in former, confining him to his bed for two months. After the application of a blister to back, two months ago, pain had nearly disappeared and has been very slight since, but that in leg at once increased, the limb being always cold and at times numb, with some diminution of sensibility; though lameness appears to have been caused by pain rather than by loss of

muscular power; walks with a cane, but with considerable difficulty on account of pain. Some tenderness on pressure along outside of left thigh as well as in gluteal region.

8th. Dry cupping about region of sciatic nerve on left side.

9th. *Acupuncture* to left hip succeeded, and the following liniment twice daily to be applied to hip: R. Olei olivæ ℥iss; acidi. sulph. ℥iss; olei terebinth. ℥ss. M.

12th. *Cantharidal Collodion* applied to left hip.

13th. Much relieved since blistering.

24th. Pain about the same of late, though he walks much better than on entrance. Reapply blister. 29th. Pain about the same.

July 1. I took charge of the Hospital and found patient walking not only with a cane, but with great difficulty, with *two*—or rather crutches, although I find no record making mention of this fact.

2d. Complaining of pain and numbness in thigh. Applied to thigh tinct. aconiti sat. ℥j, twice daily. 3d. Less pain.

4th. Continues to receive relief after each application of aconite.

5th. Soreness in knee diminished.

6th. Knee continues relieved. Still has a dull pain in hip.

12th. Still improving. Apply aconite three times daily.

19th. Had a shooting pain last night, not only through hip, but down leg to ankle. Returned this morning. Relieved by application of aconite.

20th. Last evening and this morning pain returned in hip extending through whole length of limb to ankles. Aconite increased to ℥ii.

21st. Pain returned in night of a character similar to that of the previous day, and continued for about two hours; relieved, he says, by application of the remedy.

23d. Paroxysm of pain through leg last night which continued about half an hour; relieved by application. No return of pain this morning.

30th. Doing well.

August 1. Complains of no pain in thigh; reports "as well as ever." Discharged well.

June 30, 1853. J. H. E., aged 40, works in a clothes-drying machine. About a year ago was attacked with pain and numbness and prickly sensation in soles of feet, which afterwards extended to hands. At times, at intervals of a month, had bilious attacks with vomiting, lasting a day or two. Gave up work two months ago. A month since was attacked with sudden pain in shoulder running down to the heart. Was delirious with pain in the first part of attack. Unable to sleep without an anodyne. Has lost flesh very rapidly. Has not walked for a month. Has no power over lower extremities below the knees, but sitting in a chair can raise his feet upon the bed by the flexors of the thigh. Has not lost *sensation* in feet, but experiences great *pain* in ankles and soles of feet. Arms powerless below elbows; sensation somewhat impaired, though a "prickly pain," as he expresses it, is produced by rubbing their posterior surface. P. M. Complains of very acute pain in feet upon pressure. Constantly groaning. Let him have of R. Morphiae. sulphatis gr. ii; aquæ ℥j; a drachm, and repeat every hour till relief. Apply to soles of feet—R. Tinct. aconiti saturat. ℥j.

July 1. Took morphia twice. Aconite was applied once. Very soon experienced some relief. Complains now of no pain. Speaks only of a sense of numbness in upper and lower extremities. Let him rub night and morning with—R. Tinct. capsici; tinct. cantharid. fab. āā ℥j. M. Repeat morphia if necessary; if pain return in feet, reapply aconite.

2*d.* Thinks he has more use of hands. Reports himself as much more comfortable.

3*d.* Slight return of uneasiness yesterday, P. M., in right foot. Aconite was applied, and he soon experienced some relief.

4*th.* Has suffered since yesterday more from increased numbness in hands and feet, and burning sensation in calves of legs. By misunderstanding of nurse, *aconite* was not applied. Bowels constipated. R. Pil. aloes et colocynthid. gr. x.

5*th.* Return of inconvenience in feet yesterday afternoon; not, however, severe, and readily relieved by aconite. Had a comfortable night from morphia. Bowels open.

8*th.* Since 5*th.*, has been quite comfortable; does not feel as well to-day; has suffered no severe pain, but still complains of uneasiness in feet and hands. Omit the wash now used on arms and legs, and substitute tinct. aconit. sat.

12*th.* Had yesterday a *salt-water bath*. Doing well.

14*th.* No return of suffering in feet. Thinks he has some motion in them. Has omitted morphia the last three nights.

15*th.* Decided improvement in motion of hand, but makes no complaint.

16*th.* Still improving; has no pain. Substitute for aconite, *salt-water*, warm, night and morning.

20*th.* Thinks limbs are less flexible, let them be bathed morning and night with tinct. sapon. et opii.

22*d.* Uneasiness in right foot not diminished for last three days. Apply unguent. veratriæ gr. viii. to the drachm.

25*th.* Sensation in hands now nearly natural; motions in all directions; complains only of weakness. Motions of feet constantly improving.

I. B., æt. 38, engineer, entered Hospital October 12, 1853. Some four months since, while at the West, after taking cold, was attacked with violent pain, and heat and swelling in feet, especially the left. Had about the same time an attack of bilious diarrhoea, and was obliged to keep his bed for two months. About two months since came from Ohio, and now makes no complaint but of pain in feet, which are somewhat swollen; the cuticle is peeling off as if bruised. Feet not so tender but that he can walk about. Says he has often excruciating pain by night, keeping him awake; has been in the habit of taking morphia every night to procure sleep. Pain is constant in top of foot, and at times also shoots up his leg and down to the toe. Apply to feet, tinct. aconit. sat. ʒj ter die; fluid extract of valerian ʒj, at bedtime.

14*th.* Had a disturbed night from pain; now bears pressure much better than yesterday.

15*th.* Suffering in feet diminishing.

19*th.* Free from pain since yesterday's visit.

20*th.* Had shooting pains at intervals during night, which he attributes to omission of morphia at bedtime.

21*st.* Says for last three or four days has been relieved during the day, but pains return at night, continuing till morning. Let him have sulph. quinia, grs. ii ter die.

23*d.* Continues to improve.

26*th.* Had a very comfortable night, better than any since entrance; took no morphia.

31*st.* Complains of sensation of soreness rather than pain in right foot.

Substitute for tinct. aconite, tinct. saponis et opii ʒj.

Nov. 4. Thinks he has improved rather less since omitting aconite. Apply olei tereb., tinct. sapon. et opii, tinct. aconit., equal parts.

6th. Less pain than any morning since entrance.

19th. Able to walk a mile or more without difficulty; has no continuous pain, but occasionally it darts along ball of foot and to great toe—not up the leg. Bears pressure everywhere without pain, but a slight touch to toe causes a feeling of tenderness. General health perfect.

21st. Discharged well.

Dr. PUTNAM suggested that instead of a specific quantity being ordered to be applied, it seemed a better way to direct the tincture to be rubbed in until tingling was produced.

Dr. STORER thought that too large a quantity might be absorbed in this way.

Dr. PUTNAM had never seen persistent ill effects from its external use; but he had heard of an instance of permanent facial paralysis following its employment in the way mentioned by Dr. Storer for neuralgia. It sometimes produces distressing temporary effects. Dr. P. added, by way of sequel to a case formerly reported by him, in which a drachm of the saturated tincture had been swallowed by mistake (see No. of this *Journal* for July, 1853, p. 69), that the patient, after recovery, found herself completely and permanently cured of the neuralgia, for which the external use of the remedy had been ordered.

Dr. BETHUNE thought that the principal difficulty in the employment of the tincture of aconite was, that the part became, in time, insensible to its effects. He mentioned cases in which this occurred.

Protrusion of the Nictitating Membrane in a Horse, and Tumour connected therewith.—Dr. BETHUNE was consulted a few weeks since by a gentleman who owned a valuable horse, in reference to a protrusion which had occurred between the lids of one of his eyes. On examination, it was found to be a fold of the nictitating membrane. It had existed above three weeks, and the owner thought was connected with an attack of the distemper, which appeared severely last spring, and from the effects of which the horse had never entirely recovered. The eyes, he thought, had been inclined to run from that time. After waiting a week longer, as the disease appeared to increase, it was determined to remove it. Assisted by Dr. Wood, the veterinary surgeon of this city, the horse was cast and secured. A further examination now showed a tumour beneath the conjunctiva of the lid, by which the nictitating membrane was pushed out from between the lids. This was removed, and was found to be of the size of a walnut, elongated and irregularly rounded. Its external appearance and the microscope both proved its fibro-cellular and non-malignant character. A portion of the exposed haw was removed with it, and a week or ten days after, the animal appeared quite well. As far as he could learn, tumours in this position in horses are quite rare. In this case, it probably had no connection with the previous catarrhal affection.

Poisoning by Prussic Acid.—Dr. H. G. CLARK reported a case of suicide by prussic acid. A German, after playing whist and drinking beer at a public house, went to bed. Soon afterwards he was heard groaning, and, the room being entered, he was found insensible, and died in fifteen minutes, and in three quarters of an hour after entering his room. The organs of the body were all found to be perfectly healthy, except that the brain was slightly congested. No odour of prussic acid was perceptible in the cavities, though carefully sought for. The stomach was given to Dr. Bacon for examination.

Dr. BACON stated that the stomach, which had not been opened at the

autopsy, was examined on the third day after the patient's decease. Its exterior presented nothing remarkable, except that the course of the large venous trunks, especially about the cardiac end, were marked by dark blue lines; on opening it, the mucous membrane, at the greater curvature, was found somewhat congested, and of a dark red colour, which passed gradually into a light pink at the pyloric end. The contents were about six ounces of a gray, pultaceous mass, with fat and fragments of food; they were acid to test-paper, and had a peculiar acid odour, which did not suggest that of prussic acid, though, after the detection of this poison, a distant resemblance was recognized in the odour.

Prussic acid was discovered by the appropriate tests, applied to the vapour evolved from the contents without heat. A portion of the contents distilled by a water-bath, yielded a clear fluid which had a decided odour of prussic acid, mixed with that of butyric acid, and in which prussic acid was readily detected. Perhaps a drachm of the medicinal prussic acid was present in the contents of the stomach; how large a quantity had been taken could not be ascertained. No other poison was found.

Adherent Placenta.—Case reported by Dr. STORER. Dr. S. was called, on the evening of the 27th ult., to attend Mrs. S. in labour with her first child. Patient aged 21 years; very stout and healthy, weighing 180 pounds. After suffering to a greater or less extent for forty-eight hours, she was delivered of a still child. The second stage of labour continued only about a couple of hours. After waiting some time for the expulsion of the placenta, Dr. S. passed his hand into the uterus, and found the after-birth firmly adherent, throughout its entire extent to the parietes of the organ. He made a slight effort to remove it, but found it impracticable. At the expiration of an hour he determined to attempt its extraction, and, expecting much hemorrhage to supervene, and that a considerable length of time would necessarily be employed in the process of detachment—if, indeed, it could be done—he administered half of a drachm of ergot. After it had been taken, the remembrance of two similar cases which had occurred in his practice several years since, both of which had terminated fatally, the one in opisthotonos, and the other in inflammation and disorganization of the fundus of uterus,* determined him to do nothing further without assistance. He accordingly sent for Dr. Channing, who made a very careful examination, and ascertained that a very slight detachment of the placenta, of perhaps an inch in extent, had taken place towards the anterior portion of the fundus, produced undoubtedly by the powerful uterine contraction caused by the ergot. As great suffering was produced by the most careful manipulations, Dr. C. administered the sulphuric ether by inhalation, while Dr. S. reattempted the extraction. With much difficulty he was enabled, by commencing at the detached portion, gradually to separate the placenta by peeling it, or rather tearing it, from the uterus; and eventually, after exertion continued for about twenty minutes, almost the entire portion was removed; small detached particles being alone left. The uterine contractions were so severe that but little hemorrhage ensued, and she was left a couple of hours after the birth of her child, comfortable. For several days she was watched with unusual interest, but not an untoward symptom has occurred since the night of her accouchement, a month since.

April 10. Compressed Aspect and Condition of the Lung after Bronchitis.—Dr. J. B. S. JACKSON referred to an instance of this appearance

* Both of these cases were reported to the Society at the time of their occurrence.

noticed by him in the lower lobe of the left lung; a compressed and flaccid condition, as if the organ had been beneath pleuritic effusion, of which latter there were no traces. Dr. J. remarked that Dr. James Jackson had inquired of him, respecting this case, whether the *bronchia* were examined, referring to the views of Dr. Gairdner (of Edinburgh), relative to this state of the lung, and that it is often caused by the exclusion of the air from the vesicles, and their collapse consequent upon the blocking up of the bronchial tubes by tough and adhesive mucus. Dr. J. said that this patient had been subject to bronchitis; he had not, however, observed any mucus obstructing the air-tubes, except one, on section of which there was some noticed. The upper lobe of the left lung had become hypertrophied, to supply the lack of action consequent on the compressed condition of the lower lobe; the upper lobe was estimated by Dr. J. to be one-half larger than its ordinary size. He referred, in this connection, to an instance of entire destruction of the left lung in infancy, and in the subject of which the right lung became nearly as large as *both* usually are. In the case which forms the basis of these remarks, there was emphysema of the anterior portion of the lungs, and also some pneumonia (Dr. Gairdner mentions the occurrence of emphysema in his cases); in the middle of the right lung there were appearances as if of tubercular disease, but, in fact, this was discovered not to be the case; there were but few tubercles in any portion of the lungs.

Dr. BOWDITCH remarked that often, lately, when about to puncture the chest in cases apparently offering most of the signs—and particularly the flatness on percussion—of pleuritic effusion, he had thought of Dr. Gairdner's opinions, having found, in many instances, no fluid upon effecting paracentesis.

Dr. BETHUNE asked if some dulness be not often caused, in *pleuritic* cases, by the existence of false membrane?

Dr. BOWDITCH replied affirmatively, but added that this cause would not account for *all* the dulness on percussion which is sometimes found.

Dr. MINOT inquired if mensuration of the chest would not generally show a relative difference in the volume and in the shape of its two sides, in cases of pleuritic effusion?

Dr. BOWDITCH: Not necessarily.

Dr. C. E. WARE referred to instances of bronchial respiration existing in pleuritic cases, and asked if it does not always, or, at least, most frequently exist?

Dr. BOWDITCH thought it often concomitant. He remarked that it is not always the length of time the effusion has existed, that is the cause of the compressed condition of the lung, for he had operated on a case in which a pleuritic effusion had existed several months, and yet the lung expanded freely and very soon; whereas, in another case, of a few weeks' duration, the condensed condition of the lung was manifest for months after the patient was comparatively well.

Empyema.—Dr. C. E. WARE reported the case of a man, 56 years of age, of a strong and vigorous frame, who had had a slight cough, and occasional pain, at first in his right side, afterwards in his left, for about three weeks previous to the time when Dr. Ware was called to him, Feb. 22. He had had his usual appetite, and attended to his usual duties. In the afternoon of Feb. 22, he was attacked with a much more violent pain than he had experienced before, in his left side, accompanied by considerable dyspnoea, but by no chill, or any marked febrile symptoms. The next morning, there was dulness on percussion at the base of the left lung, joined with deficient

respiration, a bronchial expiration, and resonance of the voice. The next morning, Feb. 23, there was, as high as the angle of the scapula, on the left back, bronchophony, and bronchial respiration, with a crepitus around it. Cough, and expectoration of a viscid, tenacious, transparent mucus, in considerable quantity, without colour, and without blood. Pulse 96. On the 24th, the bronchial sounds were less pure, and were mixed with fine crepitous râles. On the 25th, the bronchial respiration had entirely disappeared, and subcrepitous râles were heard over the whole left back up to the spine of the scapula. The dyspnoea and cough had very much subsided. The pulse 96. On the 28th, the pulse was 72, and he was in all respects convalescent; there was still some dulness on percussion, and subcrepitous râles in left back.

March 2d. There being no aggravation or return of any other symptoms, Dr. Ware discovered an obscure and distant bronchial expiration at the angle of the left scapula. On the 4th, pulse and tongue natural, good appetite, natural sleep. At the angle of the left scapula, bronchial expiration without râles, bronchophony, and dull percussion. On the 5th, he was on his bed, with pulse 108. The 7th, perfectly flat on percussion over the left back, with a clear œgophony; slight cough, with no expectoration. To the 10th, the effusion continued to increase. There was more cough and dyspnoea. The pulse was 120. The expectoration was viscid transparent mucus, very small in quantity. Through the day, the dyspnoea continued to increase very rapidly until 9 o'clock P.M., when the patient was sitting up, unable to lie down; skin cold and damp; pulse 128, very feeble; respiration gasping; countenance sunken; voice whispering. On percussion, there was entire flatness over whole left chest. The heart was pushed entirely to the right of the median line.

At 9 o'clock, the left chest was tapped a little below and outside of the angle of the scapula, and with a suction-pump two quarts of thin and very fetid pus were drawn off. At half past 10, about three quarters of an hour after the operation, the expression and colour of the countenance had become natural; the skin warm and dry; the respiration easy, in a reclining position. There was a good resonance on percussion over the whole chest, together with respiratory sound and crepitus; the pulse 120. At 5 P.M. of the 11th, the pulse was 112, full. There was a subcrepitous râle over the whole left back, and the sounds of the heart had returned to their normal location. There was not now, nor had there been at any time, the slightest fetor of the breath. On the 12th, the general condition was the same; the pulse 108. When lying on his back, under the left clavicle, for about two inches down, there was very strong tympanitic resonance on percussion, with loud, copious gurgling; but no resonance of voice, nor pectoriloquy. Immediately, on sitting up, there was dulness on percussion, and subcrepitous râles over the same space. From this time his pulse continued to increase in frequency, and it was evident that the fluid was again accumulating. His general symptoms were all aggravated, and he died very suddenly, at 2 A.M. on the 16th.

Autopsy.—Very little emaciation. On puncturing the pleura, there was an escape of gas. On removing the sternum, there was discovered, on the left side, a cavity, at the upper part, about half full of thin fetid pus, separated, by a septum of adherent lung, from another cavity, at the base, of about the same size, containing about the same quantity of pus—about a quart in the whole. These cavities being in the pleura, the lung, at the apex and at the base, was compressed, and both cavities were lined by a thick coating of lymph. Air forced into the trachea expanded the lung, but showed no opening into the pleural cavity. There was no sign anywhere of gangrene. The lung,

although condensed by compression, appeared healthy and firm. It was rather dark coloured at the surface, but less so at the root, where it was less compressed. At one point, near the mediastinum, there was a purulent deposit in the substance of the lung, about a teaspoonful in amount. In the mediastinal cellular tissue, there was extensive purulent infiltration. There was no purulent deposit discovered in any other organs of the body. The right lung and pleura were perfectly healthy. There was no trace of tubercle in either lung. There was a slight effusion into the pericardium, and the surface of the heart and pericardium were coated with a very rough deposit of lymph. Nothing abnormal in the heart. Nothing was discovered after death to explain the extreme fetor of the fluid in the pleural cavity. There was no communication with the air; there was no gangrene. There were no tubercles. The effusion was not of long duration. It supervened very gradually upon the subsiding pneumonia. The pneumonia was not attended by very active symptoms, and was short in its duration, yielding promptly to leeching and simple opium treatment. The sudden death was probably due to the complication of pericarditis with the pleurisy. Dr. Ware thought that this must have occurred after the operation. Had it existed earlier, he thought, that after the chest was evacuated, and before it filled again, he should have discovered it by the physical signs in his repeated examinations of that region. The occurrence of gurgling with tympanitic percussion, at the upper part of the left chest, was an interesting physical sign to notice. No one who heard it would hesitate a moment to say, unless he was cautioned by the history of the case, that there was a large cavity in the lung. The lung was perfectly healthy, except for compression. The sounds were owing to the lung expanding in a cavity containing air and fluid.

The operation gave very great and immediate relief. Indeed, death was imminent, and it saved the patient's life for the time. He would have been operated upon again, had he lived another day. It was obvious, however, from the appearances at the autopsy, that the operation would have been unsuccessful and useless. The chest had been divided by the adhesion of the lung since the first operation, so as to form two cavities, each containing a large quantity of fluid. The lung was adherent just where there was every indication externally for the performance of the operation. It was so compressed by the fluid where it was in contact with the walls of the chest, that it returned no more sound than when there was fluid. The lung would, therefore, in all probability, have been perforated, and not the cavity.

Dr. BETHUNE asked if it were possible that air could have entered the chest, when the latter was tapped for the purpose of drawing off the contained fluid?

Dr. WARE thought *not*; he referred the production of gas within the chest to decomposition of the pus.

Dr. BOWDITCH was quite certain that no air could have gained admission at the operation; he had taken sufficient precautions to prevent such an accident.

Dr. J. B. S. JACKSON, referring to the adhering band of false membrane, which was stated to have divided the thoracic cavity into two parts, said that it is not uncommon to find such a structure, and also a pint or two of foul matter *below* the band, while the membranes are in a better condition above, and sometimes quite smooth and polished.

Dr. BOWDITCH thought that it was quite rare to find so very *fetid* pus in the chest. He regretted that he had not injected iodine and iodide of potassium into the thoracic cavity. He thinks that, in similar circumstances, he should decidedly use this means. He agreed with Dr. Ware in his remarks that a *second* operation would have been of no service to the patient.

Premature Birth.—Dr. STORER had put a woman to bed, since the last meeting of the Society, with a premature child; she lacked two weeks of being six months pregnant; in other words, she was five and a half months advanced. The child weighed just one pound; measured $12\frac{1}{2}$ inches, entire length; $6\frac{1}{2}$ inches to the umbilicus; $8\frac{1}{2}$ inches across the occiput, and lived fifteen hours.

Erysipelas after Vaccination.—The following remarks were elicited by the report of a case of the above nature, at the meeting of the Society, holden March 27; and which was related by Dr. STORER, in reply to a query by Dr. J. M. WARREN, whether any such cases had been observed, he having lately heard of a case following revaccination.

Dr. STORER's report is that he lately saw a child in whom erysipelas was developed after vaccination. The matter introduced was taken from a perfectly healthy child; the day after vaccination, erysipelas appeared about the punctures and gradually extended over the whole arm, then attacked the other arm, passed down, covering the entire back, and disappeared after extending to the ankles. The child was about nine months old, was kept constantly at the breast, and at the expiration of ten weeks was entirely well. Dr. S. had applied the tincture of iodine with benefit, though without arresting the disease, as he has usually been able to do with this remedy.

Dr. DURKEE inquired of Dr. STORER, if, in the above case, the application of the tincture of iodine prevented the formation of vesicles upon the integument?

Dr. Storer replied that there were no vesicles formed, and he spoke highly in favour of the tincture of iodine as a local application in erysipelas; in every case, it almost instantly arrests the progress of the disease, and he had not found, usually, that the latter extended beyond the portion of the skin covered by the application.

Dr. D. remarked, that for several years he had used iodine as a topical remedy in erysipelas. He considered the simple tincture inferior to the ethereal preparation. He had used the latter, having a strength of thirty grains to the ounce, and applied it freely to the affected surface. It did not produce as much pain as the ordinary tincture. The ether evaporates instantly, and, if the patient complains of the severity of the pain, the application of pure ether would dilute the iodine at once, and thus diminish the suffering. He knew of no other topical remedy that would prevent the formation of the phlyctenæ, and arrest the erysipelatous inflammation at this stage; but the iodine will do this if liberally applied, so as to turn the skin nearly black. Merely to produce a brown discoloration is not sufficient. A physician in full practice in a neighbouring town recently stated to Dr. Durkee, that he had used the ethereal tincture in quite a number of cases of erysipelas, and he regarded it as decidedly preferable to any other outward application.

Dr. D. considers the vascular portion of the skin to be the primary seat of the disease in question. In simple erysipelas, the superficial capillaries alone are implicated; and, during the first or congestive stage of the inflammation, the iodine can be applied advantageously, and will usually arrest its further progress. But there is quite a different state of things in the second variety; that is, in phlegmonous erysipelas. Here the morbid action, which commenced in the superficial vessels, extends to the deeper vascular tissue of the chorion and the subjacent cellular membrane. And the inflammation, instead of producing a serous effusion in the form of vesicles upon the surface, yields a purulent matter, which is infiltrated into the subcutaneous cellular and muscular tissues.

Dr. PUTNAM asked for results of the application of tincture of iodine in the erysipelas following surgical operations and accidents.

Dr. CABOT had found it not satisfactory when applied upon *surfaces*, but serviceable when thrown into *sinuses*; traumatic erysipelas, he remarked, affects tissues more deeply than does that of the surface; hence, local applications are likely to be less effectual. In a case of erysipelas supervening upon ecchyma, in an old woman, Dr. C. had found the tincture of iodine ineffectual in arresting the progress of the disease.

Dr. C. E. WARE had never witnessed any efficient curative action from the local application of tincture of iodine in erysipelas.

Dr. DURKEE insisted again, and strongly, upon the *very free* use it was necessary to make of the tincture; he often pours twenty or thirty drops upon the affected part, spreading it instantly with a camel-hair pencil.

Dr. PARKMAN asked if any *constitutional* treatment was tried in Dr. Storer's case?

Dr. Storer said there was none; the patient being so young, it was not judged advisable to attempt any, even had it been deemed practicable.*

Dr. Parkman thought that many cases of erysipelas were referable to constitutional causes, and should be treated accordingly.

Dr. STRONG believed that depression of the vital powers and debilitating influences exercised upon the system, together with depravation of the blood, were circumstances preparative and *quasi* causative of erysipelas in nearly, or quite, all cases; consequently, the manifestation of erysipelas is a measure, as it were, of the amount of derangement or depravation of the system.

The connection of erysipelas with *puerperal peritonitis* being alluded to;

Dr. C. E. WARE said, that although the terrible consequences of the accident when it did occur, made it the duty of every physician to be very guarded how he passed from cases of erysipelas to cases of midwifery; yet that the accident was a very rare one, and, probably, liable to occur only under some peculiar circumstances, or only from certain forms of erysipelas. It frequently happens that for intervals of months at a time erysipelas is epidemic amongst us, and no physician, in large practice, is, during that interval, without more or less cases of erysipelas upon his hands. He never heard of any physician abandoning his practice of midwifery on this account. And he had heard of only one or two instances within the last fifteen years, known to the rest of the profession, in which physicians were supposed to have communicated the disease.

Dr. PUTNAM remarked, that he had been much surprised to find Dr. HODGE, in a recent lecture, scouting the *very idea* of any such a connection.

[At a recent meeting of the "Medico-Chirurgical Society," of Richmond, a discussion upon the effect of local applications in *erysipelas* elicited various opinions. Among others, Dr. OTIS, one of the editors of the *Virginia Medical and Surgical Journal* (see number for April, 1854), "expressed his astonishment at the importance attributed to the local treatment of erysipelas by the physicians who had spoken." None of the local applications (among which he refers to *tincture of iodine*), he maintains, are supported by any precise evidence derived from any considerable number of cases in which they diminished the duration of the disease; most of them have the disadvantage of concealing the seat of the disease. It would appear that no one has tried the

* [M. GRISOLLE, who is opposed to all *external* medication in erysipelas, remarks, also, that none of the applications made use of, even the actual cautery, have ever availed in the erysipelas in the *newly-born infant*.—He does not mention tincture of iodine among the other applications.—*Pathologie Interne*, vol. i. p. 538.—SECRETARY.]

tincture of iodine in the thorough manner recommended by Dr. Durkee; it is, at any rate, not probable that they have poured it upon the part affected, and rendered the surface nearly "black" with it. Now, if Dr. D. and others, assert nearly universal success in arresting the disease by this method, we may be said to have commenced, at least, the accumulation of "precise evidence" in favour of the iodine, and particularly of the ethereal tincture.

Dr. Otis regards abortive treatment in "periodic erysipelas," as particularly reprehensible; the application of *collodion*, however, he had observed to be attended, apparently, with advantage. If the tincture of iodine or any other local application he proved sufficient to arrest the progress of erysipelas, what "disadvantage" can there be in the mere concealment of the affected part by such application?

For the tincture of iodine, however, we contend that it does *not* "conceal" the processes going on beneath it, even when applied in the liberal manner in which Dr. Durkee uses the ethereal tincture.

It should be distinctly stated that physicians here rely mainly, and from the first, upon *constitutional* remedies; tonics, and especially quinia, with wine and other stimulants, are freely administered. The advantages of certain local applications can hardly be denied in the face of strong testimony in their favour, and if any of them will safely and efficiently check the progress of the disease and hold it in check, they are to be preferred, of course, to mere palliatives, and are of exceeding value combined with constitutional means.

Dr. Wood (*U. S. Dispensatory*, 6th ed., 1845) thus distinctly recognizes the power of the tincture of iodine in *arresting* the erysipelatous inflammation: "It (tincture of iodine) is much used in this state (*i. e.* undiluted) in erysipelas, &c., and often with very happy effects. But its application requires some caution; we are in the habit rather of surrounding the inflamed surface with a border of the tincture, embracing a portion of both the sound and the diseased skin, so as to prevent the progress of the inflammation, than of attempting a complete cure by covering the whole surface affected."—(*Op. cit.* p. 1175.)—SECRETARY.]

Imperfect Physical and Mental Developments, in a Child born in Breech-presentation, and with difficulty resuscitated from its asphyxiated condition.—Dr. MINOT had met with the above case, which was similar to others reported by Drs. Gould, Storer, and Alley. The child, at the age of six years, could not walk alone, and had only partial control over his arms. There was strabismus; articulation was imperfect, and the mental faculties were very feebly developed.

April 24. Encysted Gelatinous Tumour of the Neck.—Removed by Dr. NATHANIEL MILLER, of Providence, R. I., April 8, and sent to Dr. B. S. SHAW, of Boston, who, through the Secretary, communicated the following account: The tumour was deep-seated beneath the sterno-mastoid muscle, and moving upwards and downwards in the act of deglutition; about three inches in longest diameter, oval, but not quite so thick as broad. It was diagnosed as an encysted tumour containing a fluid of some kind, but, on cutting down upon it, it was found to have a glandular and solid appearance. The tumour was closely attached to the trachea, and after having dissected out rather more than half, the hook slipped in and revealed its nature. A part of the sac having been cut away, the remainder was cauterized and allowed to suppurate. The patient was an English woman, æt. 32, married.

The membrane of the cyst was quite thick and firm, measuring about a quarter of an inch in diameter, and a purely fibrous structure; no lining epithelium seen. The contents had exactly the appearance of calf's-foot jelly, or of a dense jelly with the colour of brown sherry wine. It was perfectly transparent. In its structure it was amorphous, filled with the finest granulations, and with a few old and dried blood-globules imbedded in it. It was insoluble in boiling water, but soluble in alkalies, and from these solutions again precipitated by acids, showing its nature to be albuminous and not gelatinous. A small quantity of fluid substance of the same colour, escaping with the jelly, was found to coagulate by means of heat and acids.

This tumour seems to be of the same nature as a gelatinous encysted tumour of the breast exhibited to the Society last November, except that, in that case, the jelly was of a more fluid kind, and presented a variety of colours, probably owing to blood in different stages of decomposition.

The specimen was exhibited to the Society.

Dr. J. B. S. JACKSON asked if it were connected at all, originally, with the thyroid body? Such a connection was supposable and not unlikely.

[Dr. Shaw cannot learn from the original communication that there was any connection of the tumour with the thyroid gland. It would seem likely that Dr. Miller would have mentioned the fact had such been the case.—
SECRETARY.]

Peritonitis.—Dr. SHATTUCK reported three cases, with the following prefatory remarks: It has been noticed that uncommon and unusual cases are apt to be observed in close sequence of time and place. Three cases of peritonitis have been lately observed, two in the same bed, and one in an adjoining bed, of one of the small wards of the Massachusetts General Hospital.

A tall, well-formed man, 53 years of age, was admitted into the Hospital on the 21st of March, 1854. He belonged to a rheumatic family, had suffered for years from rheumatic pains of the shoulders, had had two attacks of sciatica, and in his occupation as a peddler had been exposed to alternations of temperature. He was complaining of weakness, stiffness, and pain of the lower extremities, from which he had been suffering for nearly a year. The pain commenced in the sole of the left foot, and extended up the legs as high as the lumbar vertebrae. He walked about the streets with a cane till the ground was covered with snow, when he confined himself to the house. He could get about by taking hold of the furniture, till within a week or two, when he has needed the assistance of some person. Constipation; within a few months, occasional dysuria, and retention of urine; and within a few weeks incontinence. Nothing remarkable to the eye or touch about legs or back. Tickling soles of feet followed by disagreeable sensation and spasmodic movements of legs, which are sometimes drawn up of nights. This condition did not vary much for a few days. Constipation not easily overcome; uncomfortable sensations about bowels, back, and legs, rather than pain; increased difficulty of moving, so that he required assistance to be turned in bed. On the 1st of April, he complained of abdominal pain. On the 4th, the abdomen was full, resonant, and rigid; the scrotum was red, oedematous. There were two inguinal hernias, that of the right side of fifteen years' standing; it was reduced with but little difficulty. The urine passed in bed; the pulse 108, small, feeble; restlessness and discomfort; a large enema, followed by two free dejections. He took a grain of opium every three hours; failed rapidly; and died at 6 o'clock on the morning of the 5th.

At the *autopsy*, several ounces of pus were found in the peritoneal cavity.

Injection of the serous coat of the intestines, as well as of the membrane lining the walls of the abdomen. No adhesions of the intestines; that part which had protruded through the inguinal canal could not be made out. The hernial sac empty; its lining membrane red, with shreds of false membrane; the scrotum, of the size of both fists, œdematous.

Here we have an attack of peritonitis, without known cause, in a patient the subject of rheumatic attacks, and with partial and increasing paralysis of the lower extremities of a year's standing.

An Irish labourer, who gave his age as 43, but who looked to be at least ten years older, and yet as if he had had a good constitution, was received into the Hospital on the 18th of April, 1854. He had lived in Boston or its neighbourhood for twenty-two years; his health had been good, but he had come from the country a fortnight before, on a visit, and had been indulging himself in eating and drinking. He had some pain in the stomach a week before his entrance, but kept about, and on the 14th, four days before his entrance, after eating freely, he was seized with severe abdominal pain, no vomiting; constipation; and he took salts on the 15th, and went out. On the 16th, pain in right hypochondriac region, with chills, pain in back and abdomen, and he was obliged to go to bed, and to stay there. On the evening of the 18th, he presented the aspect of a man labouring under severe acute disease; the countenance dusky, petechial eruption on limbs and trunk, abdomen red from sinapisms, moderately full, the patient not complaining much on pressure. Flatness over lower right back; bronchial respiration; no râle. Pain in right hypochondriac region. Tongue brown, dry; nausea; occasional bilious vomiting. He died early on the morning of the 20th.

Autopsy.—The pericardium not adherent, containing six or eight ounces of reddish fluid, with flakes of yellow lymph. Surface of heart dotted over with soft lymph, that of right auricle had a striated and ecchymosed appearance. Two quarts of serum, with lymph, in right pleural cavity; two lower lobes of right lung carnified. *Abdomen.*—The intestines glued together by recent lymph. Pus and lymph diffused over the surface of the parietes and the viscera, particularly about the duodenum and liver. Duodenum much enlarged; small round perforation at the bottom of an old ulcer, close to the pyloric orifice of the stomach.

Intemperate eating and drinking seem to have been the determining causes of the rupture of the duodenum at the bottom of an old ulcer; and probably this took place in a very limited extent six days before death. The symptoms were not very severe, and he kept about for two days, and then the pain and vomiting returned, and he rapidly sank. It is worthy of notice that under these circumstances pleurisy and pericarditis should have supervened. The diagnosis at the time of entrance was not made out. He then complained of pain in the hypochondriac region, but the abdomen was not painful on pressure, nor was it tympanitic. He was much prostrated, and it was quite evident that he was sinking under very severe acute disease, the nature and extent of which were not to be ascertained in one so weak and suffering so much. In the third case the result was favourable, so that there has been no opportunity of confirming the diagnosis by inspection.

A Swede, 27 years of age, of a healthy family and of good general health, had a febrile affection, with diarrhœa, commencing about the 20th of December, and was confined to his bed for a month, and has not been able to work since, for more than a few days at a time, though he had tried to do so two or three times. On the evening of April 4, abdominal pain, weakness; and he came to the Hospital on the 6th. On the 7th, he was found sitting up;

cheeks thin, with an hectic flush; expression of weakness and pain, complaining of languor, restlessness, occasional nausea and vomiting. The pulse 120, small; the abdomen tympanitic, full, quite tender on pressure; constipation. Nausea and bilious vomiting continued during the day; he was very restless at night; the abdominal pain relieved by hot fomentations. He was ordered to take, on the 8th, two grains of opium every four hours, and at night the same quantity every three hours. The nausea, and vomiting, and restlessness, and pain disappeared; he slept but little till towards the morning of the 9th, and was sleeping soundly at the time of the visit, and sweating profusely. He drank freely of rennet-whey and lime-water, and took two grains of opium every three hours. He reported himself as very comfortable on the 10th, and asked for food; the pulse 118; the abdomen full, tense, tympanitic, not tender on pressure. On the 11th, he was found sitting up, dressed, and he begged for food. The abdomen was still tense and tympanitic; no dejection since his entrance. He took two grains of opium every three hours on the 11th and 12th, when he reported having been to the water-closet, and having had two free dejections. On the 15th, he had taken two quarts each of arrow-root and of rennet-whey. On the 17th, the pulse 88; the abdomen soft, not painful on pressure. He was ordered to take the opium pills once in twelve hours, and on the 19th to take them only at night; and on the 21st, they were omitted; on the 22d, he was allowed to take bread. On the 24th, he was put upon house diet, and allowed to go out, and has since been gaining strength and flesh; the bowels regular; no pain; the digestion easy.

Had this man typhoid fever in December and January? Was there any perforation in connection with an old ulceration? How far had the treatment anything to do with the successful issue? These are some of the questions open to members of the Society.

Abscess, containing Hair, on the Nates.—Dr. J. MASON WARREN had met with three cases of abscess of the nates connected with a fistulous opening over the coccyx, containing hair. The last case is a type of the two others. The patient, a young man, 20 years old, had for some time suffered from an irritation on one of the nates. Finally, an abscess formed and broke, followed shortly by one on the opposite side, both being the sources of great discomfort, the first having become fistulous. On separating the nates, Dr. W. at once discovered, about an inch below, in the median line and over the coccyx, a small aperture, about large enough to admit a probe, looking like a pit in the skin, and lined with epidermis. A probe, being introduced, penetrated to the depth of an inch and a half.

From his experience in the two former cases, Dr. W. was at once able to say that it led to a cavity containing hair, which was probably the origin of the abscess in the neighbourhood. An incision being made into this canal, it was found to terminate in a suppurating cavity, in which, lying quite loose, was a small bundle of hair. Radiating from this cavity were two canals leading to the abscesses in the nates mentioned above.

It would seem probable that originally the hair was contained in a cyst, which, from the irritation caused by sitting, had suppurated, and the pus had burrowed in different directions.

Dr. JACKSON referred to a specimen, in the Society's Cabinet, of a lock or pellet of hair taken from near the umbilicus.

Ovarian Tumour weighing Twenty-six Pounds.—The case occurred in the practice of Dr. GEO. HAYWARD, JR., and was reported by Dr. ALLEY.

The patient, a woman, forty-one years of age, of fair complexion, robust,

and active, mother of four well-formed children; nothing abnormal in their births. Had enjoyed good health until a year ago last February, when she began to feel some uneasiness in her abdomen, without swelling. Her catamenia ceased at that time, and continued suppressed until July, when a discharge of blood occurred, which continued at intervals for ten days. Her abdomen began to increase in size, and occasioned suspicions of pregnancy, which a careful examination, however, failed to establish. The discharge of blood continued at intervals, and the swelling of the abdomen increased till March, 1854, at which time the abdomen was punctured, and a pailful of fluid was drawn off, of so great density that it flowed with great difficulty through the canula, and it was necessary to clear out the tube occasionally to make it flow at all. Not long after, she died. At the *autopsy*, upon laying open the cavity of the abdomen, a large ovarian tumour was seen extending completely across the abdomen, crowding the viscera of that cavity into a very small space.

The tumour weighed twenty-six pounds, with the contained fluid. It was divided into three distinct cavities or cysts, with walls of unequal thickness; in one portion, of bony hardness, and in another, breaking from the mere weight of the tumour. One of these cavities contained a serous, sanguinolent fluid, which flowed readily. The other two were filled with a ropy, tenacious semi-fluid, of such density that it could be cut across with a knife while flowing from the cavity. The tumour was attached to the uterus by a single pedicle, which, being severed, left the uterus remaining of normal size, and with some thickening of the cervix.

Use of Butyric Acid Ether for flavouring Ice-Cream; with a Sample of the flavouring, and of the flavoured article.—Dr. ALLEY read the following account, furnished by Dr. A. A. HAYES.

The sample of ice-cream and the flavouring essence used abundantly in preparing it, now exhibited, were intended to form part of the refreshments offered at a festival in Beverly, Mass. Some of the attendants, having tasted the ice-cream soon after it was made, and before it was sent to the place of meeting, were rendered quite sick within three hours after eating it, and the apprehensions felt by their friends, joined to their own fears of poisoning, produced much excitement in the town.

These substances were placed in my hands for chemical examination. The flavouring substance, having the odour of the pine-apple, proved to be butyric acid ether, dissolved in spirits. It is well known that butyric acid is a product of fermentation, in which animal organized matter breaks up and reunites the elements of other organic matter, such as sugar. It is usually found in rancid butter, and in decomposing flesh and other animal matters at that stage when the exhalations are supposed to be infectious. This acid, united to the base of ordinary ether, constitutes the flavouring ingredient resorted to in this case, and it was free from any mineral poison. The ice-cream presented the usual character of a nicely prepared article, in which mostly cream was used instead of milk, and it was entirely free from any mineral body, of unusual occurrence. When subjected to chemical trials, the first odour of the butyric ether having passed off, butyric acid was detected, and the cream seemed to have passed, *through the presence of the butyric ether*, to an advanced state of rancidity. Although the low temperature at which ice-cream is kept might be supposed an effectual guard against any chemical change in which butyric ether may be considered as playing the part of a ferment, yet it is also well known that sugar is produced in milk and in organized vegetable matter in

the act of freezing. Sugar thus formed, together with that added to the cream, may react with the elements of butyric ether, at a low temperature, to produce butyric acid, or incipient compounds may result, which at common temperatures are converted into butyric acid.

A number of flavouring extracts, equally objectionable, are largely consumed by confectioners as substitutes for the volatile oils, and cases of severe sickness and alarm are multiplied every season from the practice.

In reference to this subject, Dr. JOHN BACON, JR., remarked as follows: The production of poisonous effects by the artificial flavouring extracts which are now coming into general use is a subject of practical importance, even if no more serious results should follow their use than sickness and vomiting, as occurred in the case above reported by Dr. Hayes. In that instance, it is possible, though not probable, that a spontaneously poisonous condition of the cream might have occasioned the illness, as such cases are on record. The artificial extracts were first prominently brought forward at the London exhibition, and were reported upon favourably by the chemists on the jury (Dr. Hofmann and De La Rue), as entirely safe substitutes for the volatile oils prepared from plants. It appears to have been assumed that the artificial products were identical in chemical composition and in properties with the natural ones which they resemble in flavour, in which case there could be no objection to substituting less expensive modes of preparation. In some cases they are certainly not identical; and, where any doubt exists, they should be used with great caution until positively ascertained to be harmless in their action on the system.

Dr. J. M. WARREN said he had been called to a family in which seven persons had been more or less poisoned by custards largely flavoured with "extract of vanilla," so termed; on analysis, nothing of a poisonous nature could be detected; yet, undoubtedly, the symptoms were referable to the said extract, which a cook, new to the family, had liberally used.

Dr. W. E. TOWNSEND referred to cases of illness caused, to all appearance, solely, by the eating of what are termed the "*acidulated drops*," and, particularly, of those termed "*banana drops*;"—he believed that one death, at least, in this city, during the last summer, was to be ascribed to their use; and certainly several instances of apparent poisoning, declared by severe sickness at the stomach, &c. &c.

[The editor of the *Annual of Scientific Discovery*, for 1853, remarks as follows in relation to the "*acidulated fruit-drops*:"—

"These have been denounced as poisonous by some persons, on the ground that fusel oil is known to produce deleterious effects; and, as a natural consequence, the confectionery referred to has been discarded. There is, however, no foundation for such statements or belief; and if the confectionery, flavoured with these extracts, has in any case produced injurious effects, it is undoubtedly to be referred to an injudicious consumption of it, and not to any inherent deleterious property."—*Op. cit.* p. 228.

This is certainly very positive language, and suited rather to reassure the somewhat daunted consumers of the said confectionery; with all due deference to so high chemical authority, however, it may be safely asked if there are not, undoubtedly, every day, instances of quite as "*injudicious*," and even more plentiful consumption of many *other* confections without any *such* effects as have been frequently observed immediately after using the kind under consideration. If this be admitted, do we not naturally look for *some peculiarity* in the confection after whose ingestion these effects are so often noticed? What, then, is the agent thus (seemingly, at least,) active? If such effects

be common, will not the "drops," and such like articles, be avoided at any rate? In perusing the entire article, upon "Perfumery, and the Artificial Extracts of Fruit," (*op. sup. cit.*), one can hardly escape being impressed with the feeling that the processes by which they are obtained, and their use, have been too readily sanctioned by the distinguished chemists whose names have been mentioned, and that more certain knowledge of their effects (occasional, at least,) upon the human system should be had before recommending them so fully.—SECRETARY.]

May 8. Fatal Peritonitis from Perforation of the Duodenum.—Dr. JOSEPH SARGENT, of Worcester, associate member of the Society, sent the specimen, which was exhibited by the Secretary, who read the following account of the case, furnished by Dr. S., who remarks that he thinks it a very rare one, and that it is the only one he had seen. The patient was a farmer, 35 years of age, and of large muscular development; he died April 28. He had, for months, complained of a feeling which he termed a feeling of "goneness" at the epigastrium, and had been troubled with flatulent eructations and occasional vomitings of green liquids, and had "distressed turns" at night, the distress being in the region of the transverse colon, and "working off" (as he expressed it) with diarrhoea. With all this, he had done rather less work than usual, but rode fourteen miles to Worcester, on a lumber-wagon, April 26, after having, on the previous day (only two days before his death), laid stone wall in the morning, and was sick in the afternoon, so as to vomit freely, which relieved him. He, however, ate no supper; was restless during the night, and rose early the next morning (27th), "feeling like death," and walked his room; ate but little breakfast; started upon his lumber-wagon for Worcester at 7 o'clock A. M., and arrived about 10 o'clock; felt very uneasy while riding, so that at last he got off the wagon and walked. At about 11 o'clock A. M. (April 27), while standing in a store in Worcester, he was seized with sudden distress in the right hypochondrium, so severe that he threw himself upon the floor, and lay there an hour or two, during which time he took something hot, with brandy, from an itinerant physician. Dr. S. saw him at 4 P. M., and found him complaining of severe pain in the region of the transverse colon, and also of pain in his shoulders. His abdomen had the hardness often observed in tetanic patients, and was not tumid, tympanitic, nor tender on pressure. With the view of inducing some relaxation of the abdominal muscles, and of facilitating an examination, Dr. S. allowed him to inhale a little chloroform, without procuring much relief to the pain or obtaining muscular relaxation. A teaspoonful of black drop was then given; and subsequently some calomel and ipecac caused emesis, and seemed to give slight relief. He took opium, however, nearly every hour through the night, and yet slept but little. At 8 o'clock A. M. of the 28th of April, he was vomiting incessantly a thin, yellowish liquid; pain somewhat diminished; tendency to be cold, with clammy perspiration; he was pulseless; intellect clear. There was now great tumefaction over the entire region of the transverse colon, with tenderness; abdomen still very hard; no hiccough. He still complained of pain in his shoulders, to which he had long been subject. He remained in this condition till about 3 o'clock P. M., when he died, twenty-eight hours after the acute attack.

Post-mortem examination, eighteen hours after death.—General peritonitis; serum, pus, and lymph in the abdominal cavity; universal injection of the peritoneum, with agglutination of some folds of intestine; inflammation most intense in the region of the transverse colon and stomach; three or four cica-

trices of ulcers in the mucous membrane of the duodenum, through the centre of one of which, very near to the pylorus, and in immediate contiguity to most intense inflammation, a circular perforation was discovered. The intense inflammation was not in the ulcer, nor in the duodenum, but in the folds of intestine lying over the latter. The base of these ulcers (which do not seem to be recent) is the muscular coat of the intestine.

Cauliflower Tumour of the Uterus (Sir Charles Mansfield Clarke). *Tumeur Polypeuse de Nature Végétante et Fibro-plastique* (Leheret). *Epithelial Cancer of the Uterus*.—Dr. SARGENT sent the specimen to the Society for their Cabinet, having observed that it contained none such. Dr. S. remarks that the tumour is rare, and that the usual mode of extirpation, by ligature, destroys the specimen. Dr. S. sent the following account: "I operated by the knife, arresting the hemorrhage by the actual cautery, and also by plugging the vagina with sponge filled with powdered alum. The patient was 47 years of age, and of irregular menstruation. She had had nine children, the last born five years ago. For six months, there had been unusual vaginal hemorrhage, which, for three months, had been slightly offensive, though the fetor has not been such as to be noticed by the friends. There had also been abundant watery discharges from the vagina. On examination, I found a long, cauliflower-form growth, springing from the upper lip of the os uteri (which latter was itself very much elongated and attenuated, but soft and healthy), and filling the whole vagina so as to present itself at the vulva. The os uteri was open, so that I could readily pass my finger into the uterus; the fundus of the organ was soft and natural; there was nothing abnormal in the feeling of the bladder or rectum; no glandular enlargement in the groins, nor tumours to be perceived in the abdomen, on palpation. Subsequent examination by the speculum showed the uterine tumour to be lobulated on its vulvar surface, and to be covered with an abundant jelly-like mucus.

The patient complained especially of weakness and of morbid excitement and wakefulness. All her functions were well performed. The tumour was increasing so fast that it would soon be troublesome by its bulk, while it was already exhausting the patient by the anxiety which it induced as well as by the discharges it occasioned; and I removed it, in the manner above stated, on the 14th of March. On the 7th of April the wound was nearly healed, and the patient was about her house and doing very well. The local treatment after the operation, and after suppuration was established, was by alum injections daily, with the occasional application of nitrate of silver.

Abscess of the Tibia: Trephining of the Bone, &c.—A section of the tibia upon which the above operation was done, was sent by Dr. SARGENT, and exhibited to the Society; it shows great thickening of the bone by reason of inflammation. Dr. S. operated last week upon the patient, a young man of 27 years, who had had periostitis of the left tibia, near the knee—perhaps owing to a blow—for eighteen years, at times with exfoliation, and, until quite recently, with little tumefaction. During this period of eighteen years, the patient had, however, been free from pain most of the time; he had been able to complete a collegiate and professional education, but had always been subject to seizures of severe pain in the region indicated, with soreness, and also with pain in the course of the sciatic nerve; there were also disturbance of the digestive system, and, occasionally, wandering neuralgic pains. Within the past year these attacks had been more frequent than before, and much more severe, so that the patient had been confined to the house much of his

time. The leg had become considerably flexed, and any extension or motion whatever was painful. For two months past the swelling had been gradually increasing, and obviously it was an enlargement of the *bone*, as well as a thickening of the periosteum; it was quite tender to the touch, and finally became oedematous over its surface. The pain was so severe that the patient often begged for amputation. The joint was entirely unaffected. General health good, except for disturbance by pain; no rigors. Dr. S. trephined the tibia April 23, 1854, perforating it just below and within the insertion of the ligament of the patella, and opened into an abscess, from which there issued perhaps two ounces of creamy pus. The periosteum over the seat of the disease was more than half an inch thick, and the bone, as seen in the specimen, greatly thickened. The patient had some pain following the operation, but has been entirely relieved since; he is gradually acquiring the power of motion with the limb.

Ovarian Disease, with Specimens, &c.—Sections of the diseased ovaries were sent by Dr. SARGENT, and were exhibited to the Society by the Secretary, who also read the following account of the patient's case, furnished by Dr. S.:—

A maiden lady, 34 years of age, first examined by Dr. S. in August, 1846 (aged, then, 26 years), was, at that time, ascertained to have the entire pelvis, as examined by the vagina and by the rectum, filled with lobulated disease, which did not seem to be of scirrhus hardness, nor to have invaded the os uteri. Dr. S. has examined her about once a year, since the first exploration, and has found the abdomen to be gradually filling up with a tumour which was not fluctuating, while the general health had remained tolerably good. It is now about two years since Dr. S. last saw her, living. Her health, this spring, had been as good as usual, so that she was occupied in domestic affairs, and had a good appetite up to the 3d of May, when she was induced to submit to an attempt at extirpation of the diseased mass by an itinerant surgeon, who told her that her chances of cure thereby were as three to one. She died three days after the operation, with symptoms of peritonitis. The *autopsy* was performed twenty hours after death. The integument of the depending parts of the body was much discoloured, and there were several ecchymoses, with bloody serum beneath the cuticle, about the lower part of the abdomen, which latter was as much distended as in pregnancy at the full term. An incision of about three inches in length had been made through the abdominal parietes, just at the right of the umbilicus, and a little below it, from which wound a bloody fluid was escaping. The abdomen had also been punctured a little below and to the right of this above-mentioned incision. On cutting through its walls, the whole cavity of the abdomen seemed to be filled with a large tumour, which covered the intestines, to which it was attached by some old adhesions, especially in the epigastrium and on the left side of the abdomen. There were also slight adhesions about the umbilicus, and some traces of pus and of recent lymph in the same region; but the general investment of the tumour presented a smooth serous surface, which was about two feet in every diameter, but divided, transversely, by a fissure, which was found afterwards to be between the two ovaries, which organs had contracted adhesions to each other that admitted of easy separation; the right ovary constituting the larger part of the mass, and rising so as to fill the right hypochondrium, the epigastrium, and the left hypochondrium, leaving only the space from the umbilicus to the left lumbar region, and to the left groin, for the other ovary. Along this said fissure the Fallopian tubes could be traced, each about eight inches long, with their fimbriated extremities open,

admitting a sound. The round ligaments of the uterus were also seen passing under the investment of the tumour, to the groins. The whole mass removed weighed $46\frac{1}{2}$ pounds. On dissection, the vagina was found to be elongated to seven inches; the os uteri almost obliterated by attenuation; the body of the uterus itself being elongated to fourteen inches, reaching upwards over the whole of that portion of the tumour which was afterwards found to be constituted by the left ovary, which itself presented a surface of about twelve inches square. The anterior wall of the uterus was quite thin, perhaps one-eighth of an inch in thickness, while the posterior wall was half an inch thick. The upper part of the uterus was filled with a coagulum; the uterus itself was found to be perforated by a trocar, which the "surgeon" above referred to had passed quite through both walls of the organ, prior to his capital operation; the puncture extended from the uterus into the left ovary, in and about which there was extensive ecchymosis (nearly a pint of blood was said to have flowed through the canula of the trocar, before its removal). The left ovary was about one foot square on its surface, and six inches in thickness; the right ovary was about one foot, cube. The structure of both was analogous, and throughout was like the specimens exhibited to the Society, and which are sections, one from each ovary. The *bladder* and *vagina* were healthy. *Right ureter* dilated to the size of a finger; and the pelvis of the *kidney* was so enlarged that the kidney itself was only a sac of urine. *Left kidney* perhaps three times the natural size, and unusually friable; the broken surface resembling that of the spleen, while the lining of its pelvis was dark, by distension of the venous capillaries. *Lungs* free from adhesions, excepting slight ones at their apices; their general surface dark, by venous congestion; no tubercles. Dr. S. adds, that it is understood that the "surgeon" gave up his operation because he found adhesions.

Dr. B. S. SHAW, who examined a portion of the specimen microscopically, pronounced its structure to be fibrous. No trace of cells visible.

Dr. SARGENT presented to the Society, with the above specimens, the *identical pitchfork*, upon the handle of which a lady was impaled to the extent of twenty-two inches, the handle entering the vagina. (See *Amer. Journ. of Med. Sciences*, Oct. 1853, p. 355.)

Irregularities in Measles.—Dr. PUTNAM referred to some cases of measles that he had reported some time since, showing that the irregularities in the disease had, during the present season, been unusually frequent. He further read the following history of three cases, communicated to the Society by Dr. JAMES JACKSON:—

The following is a case of idiosyncrasy in resisting the measles, which was finally overcome. It is the more remarkable, as it was transmitted to the offspring, and modified the disease in them. In regard to the facts, I should believe that some error might have occurred, had not the subjects of them belonged to my own family.

F. H. was exposed to measles in early childhood. He was with a sister who had the disease, and was himself unwell. I remarked, at the time, that he had the constitutional affection, so that if he had had any eruption, I should say he had had the disease. I do not now recall the particular symptoms showing the constitutional affection; but, at the time, I regarded them as being characteristic of the disease. Since that time, he has been exposed, more than once, to the measles, without any result as to himself.

He has two children. The oldest, a boy, was taken sick on the 31st of December, 1853, with a sore throat and febrile symptoms. We were looking

for the measles in him. He had not any affection of the eyes, nor of the nose. The affection of the throat was principally in the soft palate, at its margin, which was red, swollen, and painful. This continued five days, during which he kept mostly on a couch, but walked about occasionally, and had not much appetite. There were not at any time distinct spots on the palate, such as frequently precede and attend measles. On the fifth day he appeared better; but, after the morning, he discovered an eruption, which had the distinct characteristics of measles, about his elbows and about his knees, mostly on the latter. This subsided on the third day from its appearance, and left him well, though somewhat emaciated and enfeebled. In the two following days (the 8th and 9th of the disease), he convalesced rapidly; on the 10th and 11th, he walked abroad, and at his own request he went to school on the 12th, 13th, 14th, and 15th. On the 16th, he had a rheumatic pain, with some slight constitutional affection; the pain was less on the 17th, but the fever more; on the 18th, there came on an eruption of measles on his face and breast, which spread rapidly over the body. It was very full, and strongly marked in every respect. He was somewhat prostrated at this time, and coughed much. The eruption abated on the third day, and terminated on the fifth. From this time he convalesced rapidly.

It will be perceived that the full eruption occurred on the 19th of January, 1854.

On the 28th of January, the sister had an eruption of measles, preceded by a slight indisposition for two or three days, in which the eyes and nose were slightly affected, but the throat not at all. The eruption was on the face and breast, and afterwards on the other parts of the body, but was not full nor high coloured. The patient was on her feet much of the time. In the course of the fourth day of the eruption (January 31), when I looked for a decline of it, on the face at least, it began to increase in every respect, so that the next day it was very full and high coloured. The fever increased with this change, and on the next day it was quite severe; she was entirely prostrated; pulse very frequent; skin hot; and she had some delirium. She remained severely sick till the 5th of February, on which day the eruption faded, and from that day it subsided slowly. During this serious attack, the passages of the nose and one ear were very much affected, as sometimes happens in scarlatina. The convalescence was very slow, and the ear has not recovered entirely at this time, May 6.

On the 7th of February, the father was taken sick. He was chilly, and had a great feeling of soreness over the whole surface of his body. He did not lose his appetite, or only in a slight degree, and went abroad a little every day. At the same time, he had a sore throat. The tonsils were inflamed, and had white patches on them. The disease with the general symptoms continued till the 12th, when he was much better in every respect, and from that time the throat got well. But on the three days following the 12th, he felt sick again, and his countenance was much altered, and a loss of flesh was very manifest. On the 16th of February, he was much better, so that on the 17th, he went a journey of 200 miles into the country, which had been deferred on account of his sickness. He returned on the 20th, having encountered very cold weather, but felt very well. Yet on the night of his return, he discovered an eruption on his thighs and legs, though not on any other part of his body. On examination, the next day (21st February, and the fifteenth of his disease), I found that the eruption was that of the true measles. This continued four days, the general health not being disturbed.

There are here shown three cases of remarkable irregularity in measles, all

occurring in one family, a father and his two only children. Nothing of the kind had occurred in any of the progenitors of the father, so far as I know; and I probably should have heard of it, had it occurred among any of his relatives in the generation preceding him. The cases differ from each other as to their course, but in each of them the rash came out with difficulty, and in both the children it burst out with violence after it had made one effort to show itself. In the father, there seemed to have been an effort to produce the disease when he was exposed to it in his childhood. Again, while he was exposed to it in his children, in his thirty-ninth year, a new struggle took place, such that I said to him he was affected by measles without an eruption. Then, after complete recovery, and while much exposed in cold weather, the eruption came out, but limited to the lower extremities.

It is proper to add that the idiosyncrasy in these cases cannot be attributed to any feebleness of constitution. The father has always enjoyed good health, and so have his children.

ART. V.—*Observations on the Pathology of Cases of Yellow Fever, admitted into the Pennsylvania Hospital during the Summer of 1852.* By THOMAS HEWSON BACHE, M.D.

It will be observed, of the fourteen cases on which *post-mortem* examinations were made, that the head was examined in four only. It is, therefore, necessary to state, to prevent wrong conclusions, that, in cases dying without any symptoms which indicated the probability of any lesion of the brain, the calvarium was not removed.

CASE I.—Examined thirteen hours after death. The external surface was of a bronze-yellow colour over nearly the whole body, with bloody discoloration of the scrotum and all dependent parts; rigor mortis being well pronounced. The dura mater was tinged yellow, and the vessels of the membranes were congested with venous blood. The substance of the brain, however, appeared healthy. In the thorax, some slight adhesions of the left pleura were found, which were of a yellow tinge. Both cavities of the heart were full of blood. The cavity of the pericardium contained a fluidounce of yellow fluid, which was tested for bile, and found to contain it. The stomach was red and somewhat corrugated, and very much distended with a black fluid, in appearance similar to that which had been vomited before death. The small intestine contained a black fluid, which became more pasty and of a lighter colour as it was traced downwards, until, arriving at about three or four feet from the ileo-cæcal valve, where it ceased, it became of a lead colour. The liver was finely mottled with yellow and red spots. The microscope showed a great excess of oil-globules, not only in the secreting cells themselves, but floating freely in the field. The gall-bladder contained bile. On removing the right kidney, which was abnormally yellow, a large psoas abscess was found.

CASE II.—Examined sixteen hours after death. The general appearances of the external surface, as well as of the internal organs, were, with the exception of the gall-bladder containing no bile, and both intestines being contracted, the same as in Case I.